APPEAL COURT, HIGH COURT OF JUSTICIARY

[2021] HCJAC 38

HCA/2021/4/XM
HCA/2021/5/XM
HCA/2021/6/XM

Lord Justice General
Lord Woolman
Lord Pentland

OPINION OF THE COURT

delivered by LORD CARLOWAY, the LORD JUSTICE GENERAL

in the appeals following a reference from the Scottish Criminal Cases Review Commission

by

(1) BRIAN JAMES MEIGHAN; (2) KEVIN JAMES KANE; and
(3) DAVID SUTHERLAND PUGH

Appellants

against

HER MAJESTY'S ADVOCATE

Respondent

Appellant (Meighan): J Scott QC (sol adv), J Mulgrew (sol adv); John Pryde & Co SSC (for Russells Gibson McCaffrey, Glasgow)
Appellant (Kane): Mackintosh QC, Hay; John Pryde & Co SSC
Appellant (Pugh): A Ogg (sol adv); Paterson Bell (for McClure Collins, Glasgow)
Respondent: Prentice QC (sol adv) AD; the Crown Agent

17 August 2021

Introduction

[1] This is an appeal against the convictions of the appellants, at Edinburgh High Court on 31 October 2000, on a charge of abduction and rape. Each appellant received a custodial disposal of 6 years. An appeal, which was based upon a purported misdirection by the trial

judge, was refused on 5 June 2002 (2002 SCCR 779). The appellants subsequently applied to the Scottish Criminal Cases Review Commission for a reference to this court. This was refused in 2004. A petition for judicial review of that decision was dismissed in 2006 (2006 SCCR 433).

[2] In November 2020, the SCCRC referred the case to the court on the basis that there may have been a miscarriage of justice because of the existence and significance of evidence which was not heard at the original proceedings (Criminal Procedure (Scotland) Act 1995, s 106(3)(a)). The new evidence takes the form of reports from: Dr Brigitte Astrup, a forensic pathologist; Prof Edward Shaxted, a consultant obstetrician and gynaecologist; and Judy Malmgren, a forensic nurse. These are said to undermine the testimony given at the trial by the police surgeon, Dr Kranti Hiremath.

[3] Dr Hiremath was of the opinion that the complainer's injuries, which she and a colleague had documented a few hours after the incident, gave rise to an inference that forceful intercourse had taken place. In broad terms, the appellants contend that the position outlined in the new reports is that research, which has been carried out subsequent to the trial, demonstrates that the incidence of genital injuries following consensual intercourse is so high that no conclusion on the question of consent can be drawn from them. A report from Dr Michael O'Keefe, a forensic physician, who was instructed by the SCCRC, is generally to the same effect. His contention is that the genital injuries did not support an allegation of rape.

The trial

The complainer's account

[4] The events took place over twenty years ago in a multi storey block of flats in Little France, Edinburgh. The complainer was then aged 20 and the mother of a two year old. She testified that, on Friday, 19 November 1999, she had been with friends on the fourteenth floor of the block. There was a small birthday party going on. At about 1.00am on the Saturday, one of the company received a telephone call from an ex-girlfriend which caused him to leave the flat in a hurry. The complainer attempted to catch up with him. She was worried that he might be going to the ex-girlfriend's flat and would cause an argument. She went out of the main door of the block, but he was nowhere to be seen.

[5] The three appellants, who were all friends, were in a flat on the third floor. The third appellant spoke to the complainer out of a window. She was under the influence of alcohol and formed the erroneous impression that the person for whom she was looking was in that flat. She accepted an invitation to go up to the flat. After a relatively brief conversation, she attempted to leave, but was grabbed from behind and propelled into a bedroom. The three appellants were feeling her all over, despite her efforts to stop them from doing so. They removed her clothing. One of them inserted his penis into her mouth. At the same time, another put his penis into her anus, causing her excruciating pain. When that was withdrawn, a penis was inserted into her vagina. Traces of semen were subsequently found in her mouth, anus and vagina. The complainer said that she had struggled, cried and urged the appellants to stop.

[6] The second and third appellants left the flat to buy some food and drink from a local garage. When they returned, the first appellant was having intercourse with the complainer. He then left the bedroom to join the other appellants in the living room. The complainer got

dressed and returned to her friends' flat on the fourteenth floor. By then it was about 2.30am.

Distress and de recenti statements

[7] When the complainer returned to the fourteenth floor flat, she broke down in the kitchen; crouching down on the floor and crying noisily. She was described as being in shock. She reported that she had been confronted by a group of unknown men as she had re-entered the block and had been raped on the stairs. Several witnesses spoke to the complainer being in a highly distressed state, frightened and unable to sit down because of pain in her bottom. The concierge was telephoned so that the CCTV images of the stairs could be reviewed. The concierge described hearing hysterical sobbing in the background on the phone. Although the concierge did not look at the images, she did secure the assistance of two police officers who chanced to be in the block. The complainer repeated her account of having been raped on the stairs to the police. She said that she would be unable to identify her attackers. Later, she explained that she had given this false account because she had been afraid of being blamed by her friends for going into the third floor flat.

Medical evidence

[8] At about 7.15am the complainer was examined by two police surgeons, as they were then called (now forensic medical examiners), namely Doctors Hiremath and Patrick Flynn. Their joint report recorded the complainer's false account of being attacked on the stairs. The doctors noted that she was in a great deal of pain in both her vagina and anus. She found it painful both to walk and to sit down. Three 1cm diameter red bruises were detected on her spine at T10/11, L1 and L3. On the right side of the abdomen there were two

parallel linear scratches, each 9cm long, separated by 1cm of uninjured skin, and extending from the 7th rib downwards to the abdomen.

[9] There were several injuries to the external and internal genitalia, notably a red swollen *labia minora* and *majora* especially near the posterior fourchette. There were superficial mucosal tears on the left side of the hymen. There were tears to the anus with some bleeding, both externally and internally. The report concluded that:

> "The examination findings would be consistent with blunt force trauma of penile penetration in the vaginal and anal area, with the use of a considerable amount of force to produce the amount of bruising seen."

[10] Only Dr Hiremath testified at the trial. She had been a police surgeon for 4½ years. Her academic qualifications are MBBS, DRCOG, MFFP and Dip FM. She had previously practised in obstetrics and gynaecology for many years. She had spent an equivalent period in family planning. She had examined female genitalia "almost every day" of her professional life.

[11] Dr Hiremath spoke to the pain from which the complainer was suffering. She referred to the bruises and scratches; indicating that they would be caused respectively by something pressing against the complainer and from fingernails. The *labia minora* and *majora* were both "very much red, and swollen, but just very prominent". The posterior fourchette was the first area to be injured "in many cases of sexual assault … even in consensual cases sometimes". There had been three or four tears to the hymen, which she said were not normally seen in sexually active women.

[12] Having described the genital injuries, Dr Hiremath was asked by the advocate depute: "Did you draw any inferences from what you saw of the condition of the genitalia?" She replied: "That there had been forceful sexual assault". She went on to describe the

condition of the complainer's genitalia as "one of the worst ones she had seen". She was asked whether she drew any inferences from what she had observed of the anus. She replied that the injuries had been caused by blunt force trauma. In order for the amount of bleeding and the tears to have occurred, "a lot of force was used". There was no objection to any of the questions by any of the appellants.

[13] The defence had collectively instructed Prof Anthony Busuttil, who produced a report dated 16 October 2000. This report has not been traced. According to the second appellant's counsel, Prof Busuttil was of the view at an initial consultation that the anal and vaginal injuries, which were described in Dr Hiremath's report, were consistent with recurrent sexual intercourse, including with more than one person, in a short time. The complainer's pain could have been dulled by the effects of alcohol which would wear off over time. It was not possible to say conclusively whether the intercourse had been consensual or not. According to the third appellant's counsel, Prof Busuttil's report had suggested that the injuries could be consistent with "vigorous intercourse". Ultimately, it became plain that, if he was called as a witness and Dr Hiremath's evidence was put to him, Prof Busuttil would not criticise her findings. This was partly because she had been the one who had carried out the examination and he had not. On that basis the appellants decided not to call Prof Busuttil as an expert witness at the trial.

[14] The first appellant elected not to cross-examine Dr Hiremath. The second appellant did so. He was able to demonstrate that, because of her slight build (8st 6lbs), the complainer would bruise easily. There was no fingertip bruising. The scratches could have been caused in the course of consensual sex. All penile penetration involved blunt force trauma. If no lubricant had been used, there would have been increased friction which would cause the reddening even in a consensual situation. The situation was similar with

the anal penetration but "this amount of tears you wouldn't see in life". In answer to a leading question, Dr Hiremath agreed that the "marks" suggested that intercourse had taken place with "a considerable degree of force". The following exchange then took place:

> "You can't say conclusively from this whether it was consensual or not?"
> "Ehm, no conclusive, but it's more likely to be … non-consensual…".

[15] The third appellant cross-examined the doctor. Dr Hiremath accepted almost immediately that whether what had happened constituted an assault was a matter for the jury. When she had referred to forceful sexual assault, Dr Hiremath was saying only that the injuries were consistent with such an assault. Considerable force would have been needed to produce the bruising which she had seen. She had not seen anyone who had this kind of bruising after consensual intercourse, although she had not encountered a history of a woman having consensual sex with three men over a period of an hour. On it being put to her that the injuries were equally consistent with prolonged, rough intercourse, she replied "Whichever way, these injuries are still bad, is all I can say."

[16] In re-examination, Dr Hiremath explained that she would not expect to see injuries on the genitalia after consensual intercourse because there would, in that situation, be enough lubrication.

The forensic science

[17] Traces of semen were found in the complainer's saliva, vagina and anus. The DNA profile, which had been obtained from the DNA from the anus and vagina, matched that of the first appellant. There were no other matches.

The defence case

[18] All three appellants gave evidence at the trial. The first appellant, who was aged 24, testified that his co-appellants had invited the complainer to his flat. She had mentioned her fantasy of having sexual intercourse with three men underwater. He had said "would a bed do?" She had said yes and led the three into the bedroom where she undressed. She kissed the third appellant and touched all three. She performed oral sex on the first appellant. Various consensual sexual acts then took place. The first appellant had continued to have vaginal intercourse with the complainer while the others left to go to the garage. He had tried to leave the complainer when they returned, but she had wanted him to stay. After they had dressed, she had invited him to visit her at her home "any time" before kissing him at the door. She had been happy, perfectly fine and not distressed, shocked or upset. In his police interview, the first appellant had given a similar account. He had admitted having oral and vaginal, but not anal, intercourse. No one had used any force.

[19] The second appellant, who was 19, accepted that he had asked the third appellant to invite the complainer up to the flat; not thinking that she would do so. No-one told her that the person for whom she had been looking was not in the flat. The conversation had moved on to sex. The complainer had mentioned having sex with three people in the ocean. The third appellant had asked whether she could manage three people in a bed. She said that she had done this already with five people and suggested going to the bedroom. That is what had happened. She had undressed with the help of the third appellant. No force had been used. The second appellant had had oral and vaginal intercourse with the complainer. She had been more than happy to go into the bedroom and, once there, had enjoyed everything.

[20] The third appellant, who was 23, had heard the complainer looking for a person, whom he knew. He had invited her into the flat. She had not been given the impression

that her friend was in the flat. The complainer had kissed him on the cheek. This was not something which had either been put to the complainer or mentioned by the other appellants. She talked about her sexual past and having a fantasy of having sex with three boys in the ocean. He had asked her if she would settle for a bed. She said that she had done that before, with five persons. She had asked him if he wanted to go to the bedroom to have sex. He had said that he did not. She had asked them all to go through for "line-ups". He had unclipped one of her dungaree buttons, but she had removed the rest of her clothing herself. She had then engaged in the various sexual acts. He had been unable to sustain an erection. While the complainer had been performing oral sex on the first appellant, she had asked the third appellant to have anal sex with her. He had tried to do this, but had failed. He had inserted his fingers. At the end of the incident, she had said "Thanks lads, any time", gave them her address and left. She had not been distressed. She had been "fine". In his police interview, he had accepted that he had had both oral and anal, but not vaginal, intercourse. The complainer had been quite enjoying it. On being asked why the complainer would have made a complaint of rape, he had said that she might have been "trying to be funny and get something back on us for treating her like … a piece of dirt."

Speeches

[21] The advocate depute founded strongly on the background to the events; in particular the way in which the complainer had been enticed to go into the flat on a false pretence that the person for whom she had been looking was there. She pointed to the description of events by the complainer, the evidence of her distress and the "impressive, powerful, medical evidence". How, asked the AD rhetorically, did the complainer get the injuries which had been described when none of the appellants seem to have had any difficulty in

having intercourse? She referred to Dr Hiremath's testimony that, in consensual intercourse, women produce lubrication, which meant that this type and degree of tearing and swelling would not occur. The episode would have been very painful and Dr Hiremath could not accept that any woman would have had continued intercourse after the first tear. The picture painted by Dr Hiremath, of the injuries being among the worst that she had seen, did not fit with the accounts given by the appellants, but they did accord with that of the complainer. The first appellant's account that he had not had anal intercourse was inconsistent with the finding of his semen in the her anus.

[22] Counsel for the first appellant focused on the complainer's false account of being raped on the stairs. He maintained that this was a cover for what she been engaging in consensually and thus being away from her friends' flat for some otherwise unexplained period of time. The medical evidence was consistent with both rape and consensual intercourse. There were no injuries to suggest that she had been involved in a physical struggle. The accounts given by the appellants were consistent with each other.

[23] Counsel for the second appellant concentrated on internal inconsistencies in the complainer's account. He pointed out a potential discrepancy in Dr Hiremath's evidence in relation to whether there had been three or four bruises. Dr Hiremath had formed her own view as to what had happened, that there had been a forceful sexual assault, but she later had to concede that that was a matter for the jury. Counsel emphasised that, although Dr Hiremath had said that non-consensual intercourse was more likely, the findings did not exclude consensual intercourse.

[24] Counsel for the third appellant returned to the lie about the attack on the stairs; suggesting that once told, it had to be maintained. This was to be contrasted with the consistency in the appellants' accounts. Emphasis was placed on the absence of injuries to

suggest that the complainer had been forced into a bedroom. The evidence, as Dr Hiremath had accepted, was consistent with "vigorous sexual intercourse, with three people, over a substantial period of time".

Charge to the jury

[25] The trial judge directed the jury on the importance of corroboration. If the jury accepted the testimony of the complainer, they could find corroboration of her lack of consent in her distressed state. The jury were directed to approach any evidence about distress with "considerable caution" because, according to the trial judge, many things could cause a woman to become distressed. The second source of corroboration was the evidence of the injuries. The judge referred to Dr Hiremath's evidence of the complainer's pain and her genital injuries. The jury were directed that, if they accepted the complainer, they could find corroboration in the injuries. The trial judge continued:

> "However, again I have to give you an important warning. You heard it being put to Dr Hiremath in cross-examination that the injuries, that is the tears, the swelling, the reddening and so on … could happen in the course of vigorous and prolonged consensual sexual activity … My recollection is that Dr Hiremath agreed to some extent with these propositions … so … if you accept the evidence of [the complainer] and you are looking at … the evidence about the injuries, you still have to approach that evidence with considerable caution and … decide … whether you think that her injuries corroborate what she told you about not consenting to anything and about force being used …".

Appeal, reference and review

[26] The appellants lodged notes of appeal. They contended that there had been a miscarriage of justice because the trial judge misdirected the jury in relation to their approach to the appellants' testimonies. This appeal was refused (2002 SLT 914). In 2004 the appellants applied to the SCCRC to refer the case back to the court on several grounds. They contended that there was new evidence from a number of witnesses, including one

who claimed that, shortly after the incident, the complainer had stated to a number of people that she had invented her version of events. Other grounds included "irregular conduct" by a juror and a contention that Dr Hiremath had not been sufficiently experienced to provide opinion evidence on sexual assault. The SCCRC refused the application. They did not consider that the evidence of the account being invented was credible and reliable or that it was of sufficient significance. No miscarriage of justice could have occurred from the alleged juror irregularity. Dr Hiremath had been suitably qualified to give evidence. Further submissions did not alter the Commission's view.

[27] The appellants lodged a petition for judicial review. They maintained that the SCCRC had not taken proper account of certain matters and had taken into account irrelevant matters, such that their decision was unreasonable. These contentions were unsuccessful (2006 SCCR 433).

[28] Many years later, and after the appellants had served their sentences, they made a new application for a reference to the SCCRC. They based it upon developments in medical science in relation to the interpretation of genital injuries in sexual offence cases. In broad terms, the new contention was that genital injuries could not be used as a basis for expressing an opinion that the sexual intercourse had, or had not, been consensual. This was based upon an analysis of articles in medical journals which had been published subsequent to the trial. It is on that basis that the case has been referred to the court and upon which the present appeals have proceeded.

The new evidence

Dr Brigitte Astrup

[29] Dr Astrup has carried out examinations on sexual assault victims since 2005. In her report of 9 January 2015, she concludes:

> "…the genital injuries documented by Dr … Hiremath, are suggestive of recent vaginal penetration. The nature of the documented injuries, does not, however, corroborate the allegation of consent nor of non-consent."

Her opinion is based on a number of articles, which will be considered in more detail below and include the following:

(1) Astrup *et al*: *Patterned genital injury in cases of rape – A case-control study* (2003) 20 Journal of Forensic Medicine 525;

(2) McLean *et al*: *Female genital injuries resulting from consensual and non-consensual vaginal intercourse* (2011) 2004 Forensic Science International 27;

(3) Anderson *et al*: *Genital findings of women after consensual and non-consensual intercourse* (2006) 2(2) Journal of Forensic Nursing 59; and

(4) Lincoln *et al*: *Microscopically detected female genital injury after consensual and non-consensual vaginal penetration: A prospective comparison study* (2013) 20(7) Journal of Forensic Medicine 884.

[30] In relation to the genital injuries reported by Dr Hiremath, the four studies showed that the frequency of any lesion following consensual sexual intercourse was respectively 49%, 30.4%, 6.9% and 9.9%. The frequency following non-consensual intercourse was 49%, 32.1%, 22.8% and 53.7%. Dr Astrup's conclusion was that:

> "The frequency of genital injuries following sexual intercourse is so high that no conclusion regarding consent can be drawn from the data".

[31] Dr Astrup said that women may have injuries at the posterior fourchette regardless of consent. Injuries in other locations were seen, but less frequently, following consensual sex. Redness and swelling were ambiguous entities, which were difficult to evaluate. They had a variety of aetiologies, including infection, tight clothing, prolonged bicycling or horseback riding, or latex allergy in condom use.

[32] On the number of lesions, Dr Astrup said:

> "In the adult population a significantly higher frequency of rape victims have more than one lesion … only approx., 1/20 of consenting adults have more than one injury.
>
> Conclusion: in general, the frequency of multiple genital injuries is significantly higher in victims of rape than in consenting women. But multiple lesions following consensual sex is reported …".

[33] Dr Astrup stated that a person could experience conscious sexual desire without the body following the thoughts or *vice versa*. On the anal injury, tears could be seen following intercourse, but also following constipation or rectal exploration. Her conclusion was that:

> "There is no evidence that supports that a single anal tear is suggestive of anything else than a recent passage of something through the anal canal. It could be a penis, fingers, or faeces during a period of constipation."

[34] Dr Astrup expressed the view that there was no scientific basis for the conclusion that the injuries were the result of non-consensual sex. Genital injury was commonly seen following both consensual and non-consensual activity. It corroborated recent sexual intercourse, but not consent or non-consent. There was only a vague association between a perception of pain and the finding of an injury. Mucosal tears were not painful by themselves. The pain arose from the degree of blunt force. The amount of force was not correlated with mucosal injuries. In Dr Astrup's view, the injuries could have resulted from prolonged consensual intercourse, and therefore did not prove lack of consent. A superficial anal fissure did not corroborate lack of consent. In summary, Dr Astrup did not find any indications of either non-consent or consent in the pattern of injuries.

Professor Shaxted

[35] In his report of 4 March 2016 Prof Shaxted explained that he was a clinical obstetrician and gynaecologist, but not forensically trained. His views of the medical

evidence accorded entirely with Dr Astrup's report. He added a further publication, which pre-dated the trial *viz.*: Slaughter *et al*: *Patterns of genital injury in female sexual assault victims* (1997) 176 American Journal of Obstetrics and Gynaecology 609. The publications all said the same thing. The nature, type and localisation of genital injuries in rape complainers was similar to those found in women who had engaged in consensual intercourse. He continued:

> "However, the prevalence of genital injury is probably greater after rape but the nature of the injury, the site of the injury and the type of injury is very similar".

Judy Malmgren

[36] Ms Malmgren is a sexual assault nurse examiner. She had carried out a detailed examination of a transcript of Dr Hiremath's testimony. Her conclusion was that:

> "Dr K Hiremath did not present as unbiased, nor did she appear to have the knowledge, training, experience or grasp of the literature upon which to base her conclusions. … The injuries … are consistent with sexual intercourse, specifically penile vaginal and penile anal penetration. Beyond that, the injuries do not determine whether the sex was consensual or non-consensual. They are consistent with intercourse but they do not prove that a sexual assault occurred, only that sexual intercourse had taken place. There are no criteria to corroborate lack of consent, and to suggest or comment otherwise is biased and unsupportable. 'Force' is not a measurable activity. The term 'blunt force trauma' is more appropriately applied to activities such as being struck by an object. It has no qualifying set of criteria for sexual contact, and it use today in cases involving penile penetration is discouraged. Although much of the literature today regarding injuries during consensual and non-consensual sexual intercourse post-date Dr Hiremath's transcript, there was published research prior to 1999 …".

Reference was made to, amongst others, the Slaughter *et al* paper.

Dr Michael O'Keefe

[37] Dr O'Keefe is an independent forensic physician. He had been an FME from 1980. He was an honorary senior lecturer in forensic medicine at Glasgow University. He too was provided with a transcript of Dr Hiremath's testimony. He did not agree that the inference

to be drawn from the genital findings was that there had been forceful sexual assault. In his extensive experience, redness and swelling could be due to a variety of causes, including trauma, but most commonly fungal and bacterial infections, dermatitis, allergies and poor hygiene. Dr O'Keefe was unable to agree with Dr Hiremath on force being used to produce the anal injuries; his reason being that there was no peer- reviewed research studies to provide an evidence base for this. The same reasoning applied to Dr Hiremath's view that the genital injuries had resulted from a lack of lubrication due to non-consensual sexual intercourse .

[38] On Dr Hiremath's reliance on pain, Dr O'Keefe commented that pain was not a clinical sign which could be reliably measured or recorded objectively. It was an entirely subjective sensation which had a considerable variation in its perception by different individuals. Once again the absence of peer-reviewed papers, which indicated that superficial mucosal tears would result in a specific degree of pain, was important.
Dr O'Keefe made a series of criticisms about: Dr Hiremath's failure: (i) to provide a proper explanation of certain matters; (ii) to acknowledge that genital injuries could result from consensual sexual intercourse; and (iii) to refer to a suitable evidential base upon which her opinions on the degree of force and amount of pain might be based.

[39] Dr O'Keefe referred to the 2000 edition of "*A physician's guide to clinical forensic medicine*" (*sic*). The chapter on sexual assault examination referred to an absence of information regarding the incidence and types of genital injuries that resulted from consensual sexual acts. There had been no case-controlled study comparing genital findings in complainers with those of women who had engaged in a sexual acts consensually. Lacerations, abrasions and bruises in the posterior fourchette had all been described following consensual sexual activity. Slaughter *et al* had reported that tears and bruises had

been found on the hymen in subjects who had engaged in consensual sexual intercourse. Lacerations and ruptures of the vagina had also been described in similar situations.

[40] Dr O'Keefe referred to a number of papers which covered the incidence of genital injuries in sexual assault cases. These included: Slaughter *et al* (1997), which noted that 89% of women who had complained of sexual assault had evidence of trauma or injury, whereas 11% of women who had had consensual sexual intercourse had evidence of trauma. Slaughter recommended further investigation. Sommers *et al: Women who are injured during rape: A comparison of genital injuries after rape versus consensual sex* (2002) reported genital injuries following sexual assault ranging from 32% on direct visualisation to 87% on colposcopy. A small group of ten volunteers resulted in 10% recording a single genital injury following consensual intercourse. Further work was again recommended. Dr O'Keefe made specific reference to Anderson *et al*, McLean *et al*, Astrup *et al* and Lincoln *et al*; all of which will be considered in due course.

[41] The most recent publication was Song and Fernandes: *Comparison of Injury Patterns in Consensual and Non-consensual Sex. Is it possible to determine if consent was given* (2017) 7(4) Acad Forensic Pathol 619. This found that genital injuries were commonly found in sexual assault victims (64-82%), with a wide range of genital injury in sexual assault victims (6%-87%) and consensual sex (6%-73%). The conclusion was that, although it might seem reasonable to postulate that most sexual assault victims sustained severe physical injuries, this was not the case and that patterns of injury were much more complicated. Sexual assault victims could present with a wide-range of physical injuries, from none to multiple, with varying degrees of severity. The authors continued:

> "Therefore, it is not advised to determine the presence or absence of consent from physical injury findings alone. Evidence from sexual assault cases must be interpreted on a case by case basis at all times. There is a general expectation that

> sexual assault will result in physical injury at a rate higher than that of consensual sexual activities. Review of the literature does not support this concept. Therefore, medical legal personnel should be aware that sexual assault victims can present with a wide-range of physical trauma and should avoid relying on physical trauma alone to conclude whether consent was present."

[42] Dr O'Keefe's summary of the relevant publications involved the key finding that genital injury rates varied widely in both consensual and non-consensual situations. They did not by themselves corroborate a rape complaint. One study (Lincoln *et al*) reported that genital injury was significantly more likely to be found in the non-consensual (53.7%) than the consensual (9.9%) when looking at reports of at least one injury. The detection of bruises and abrasions was more frequent in cases of non-consensual penetration. Informed forensic medical practitioners should be aware that it was not possible to state with any degree of certainty whether sexual acts were consensual or non-consensual based solely on the anogenital findings.

Dr Hiremath's response

[43] The SCCRC asked Dr Hiremath to respond to the reports from Dr Astrup and Dr O'Keefe. She was provided with a transcript of her testimony, but she did not have a copy of her report or her handwritten notes. She emphasised her advantage in having seen the complainer and assessed how she reacted. She repeated her view that, if a woman was ready to have sexual intercourse, there would be lubrication as a result of the production of oestrogen and this amount of reddening and swelling would not feature. Where peer-reviewed literature was not available, FMEs had to go on their own experience.
Dr Hiremath accepted that women may present with injuries after consensual sex and some may present without injury or pain after non-consensual sex.

[44] Dr Hiremath reiterated her view that there had been a sexual assault, not just because of the reddening and swelling, but also the tears and the pain. That was not common. Although the posterior fourchette was the commonest area for injury during both consensual and non-consensual intercourse, injuries to the *labia* were less common in consensual sex.

[45] In order to cause a tear in the anus, some sort of force must have been used. Mucosal tears in the anus or vagina are not that common when someone has consented. Dr Hiremath regarded the injuries, combined with the fact that three people had sex with the complainer at the same time and that she appeared frightened, as all contributing to her conclusion that what had happened was more likely to be non-consensual. She conceded that the anal injury could have been caused by consensual sex. However, the vaginal injuries were more likely to be non-consensual. Although one or two of the injuries could be present after consensual sex, the important point was the combination of a number of things. The erythema (redness), the abrasions, the swelling; all of that together made it more likely that what had happened had been non-consensual. Those types of injuries did not occur after consensual sexual intercourse.

Other responses

[46] Dr Flynn was asked for his views. He had worked as an FME for about two years at the end of the 1990s. He only had the faintest memory of the examination and had not been aware that the matter had even gone to court. He had nothing to add to the joint report, as his memory was "otherwise blank".

[47] Professor Busuttil was not able to recall this particular case. He did not have access to any records relating to it, including his report, and did not feel that he could assist with anything further of substance.

[48] For completeness, the court has also considered supplementary reports from Drs Astrup and O'Keefe, which responded in turn to Dr Hiremath's comments.

Medical literature

[49] In the course of submissions, whilst warning the court about the dangers of attempting to interpret medical papers, the appellants referred to a number of specific articles. Some of the contents of these papers is worth setting out to see if they provide obvious support for their contentions. The first is Anderson *et al* (2006). The authors identified no statistical differences in the frequency of injuries to the posterior fourchette between consensual and non-consensual intercourse. They continued:

> "However, there was a statistically significant group difference in the injuries to the labia minora with injuries identified only to subjects in the nonconsensual group …
>
> The proportion of subjects in the nonconsensual group with two or more injuries (.179) differed significantly from that of the subjects in the consensual group (.022) (p = .003). The subjects in the nonconsensual group were 8.2 times more likely to have two or more injuries as the consensual group … The identification of multiple genital injuries following nonconsensual intercourse has been demonstrated by previous research using colposcopy and tissue-staining dye (Slaughter *et al*., 1997) …".

[50] The second paper is McLean *et al* (2011), which has the following abstract:

> "Most complainants of rape (n = 500, 77%, 95% CI 73-81%) will not sustain any genital injury, although women are three times more likely to sustain a genital injury from an assault than consensual intercourse."

[51] The third paper is Lincoln *et al* (2013), which states:

> "The key finding was a statistically significant different in genital injury prevalence between women who were vaginally penetrated non-consensually and consensually; 53.7% of the non-consensual group (22/41) and 9.9% of the consensual group (8/81) were found to have at least one genital injury …
>
> 3.4.4 … women penetrated non-consensually were more likely than those penetrated consensually to have more than one injury … and to have multiple injuries at a single genital site … No woman penetrated consensually had more than one type of injury, or was injured at more than one genital site.
>
> The labia minora was the most likely site for multiple injuries resulting non-consensually whilst the posterior fourchette was the only site at which more than one injury was seen in the consensual group. Women in the non-consensual group were more likely to have more than one laceration than those in the consensual group …".

[52] The fourth paper from Dr Astrup (2013) contains the following abstract:

> "A total of 98 controls [consensual] and 39 cases [non-consensual] were examined using the naked eye, the colposcope and toluidine blue dye followed by colposcopy. The overall frequency of having at least one lesion was strikingly similar in the two groups, but cases had significantly more abrasions, a trend towards more haematomas and a higher frequency of multiple lesions. Cases had a higher frequency of lesions in locations other than the 6 o'clock position. Our data suggests that cases have larger, more complex lesions."

Submissions

First appellant

[53] The big picture was that something had gone wrong with the medical evidence at trial. It was inappropriate for the Crown to rely on section 118(8)(ii) of the 1995 Act (failure to object to inadmissible testimony) in relation to evidence which had been relied upon for corroboration. The new reports constituted significant new evidence which was material to the critical issue for the jury. They met the requirements for expert evidence (*Young* v *HM Advocate* 2014 SCCR 78 at para [54]; *Kennedy* v *Cordia (Services)* 2016 SC (UKSC) 59 at para [44]; and *Graham* v *HM Advocate* 2018 SCCR 347 at para [124]). The court had to take a broad and flexible approach when looking at new evidence (*Campbell* v *HM Advocate* 1998 JC 130 at 147). The court should avoid taking a technical and narrow approach. There had

been nothing objectionable about Dr Hiremath's evidence, other than her reference to "assault". The court ought to hear oral testimony from Drs O'Keefe, Astrup and Hiremath and thereafter consider its significance (*DS* v *HM Advocate* 2008 SCCR 929 at paras [42]-[44], [53]-[54] and [58]-[60]). The research was available now and the court could see where the expert evidence had gone wrong (*D* v *HM Advocate* 2010 SLT 85 at paras [34] and [35]).

[54] There was a reasonable explanation why this evidence had not been available at the time of the trial. The first appellant had attempted to obtain information and to recover case papers from the original defence representatives. The original instructing agent had retired and no longer lived in Scotland. The first appellant's file had not been recovered. The solicitor advocate who had represented the appellant at the trial had no memory of the trial or the enquiries which had been made in advance of trial. He did not hold any relevant papers. The appellants did not have any evidence to contradict or undermine that given by Dr Hiremath.

[55] At the time of the trial there was only one reported scientific study available (Slaughter *et al*.) It concluded that the presence of injury was associated with penile penetration and was more prevalent with non-consensual intercourse. *A physician's guide to clinical forensic medicine* (2000) had also recommended further study. The publications since 2000 showed that the absence of genital injury did not exclude rape. Although injury was significantly more likely to be found in women reporting non-consensual sexual activities, genital injuries did not *per se* support an allegation of rape. Song and Fernandes referred to there being a limited understanding of the correlation between genital injury and sexual assault. The development of research and academic literature was a reasonable explanation as to why the evidence was not heard at trial (*Campbell* v *HM Advocate* 2004 SCCR 220 at para [76]; *Gilmour* v *HM Advocate* 2007 SCCR 417 at paras [86] to [96]; *D* v *HM Advocate* at

paras [9] to [15] and (34]; *Lundy* v *The Queen* [2013] UKPC 28 at paras 116-122; *R* v *Foy* [2020] Crim LR 840 at para 60). Dr Hiremath's testimony had gone beyond her report. The new evidence which contradicted this would not have been available to the defence at the time using reasonable diligence.

[56] In her closing speech, the advocate depute had founded strongly upon Dr Hiremath's testimony. The additional evidence would have been of material assistance to the jury in its assessment of the issue of consent. The balance of expert opinion, which was supported by the studies, suggested that Dr Hiremath's opinion went beyond what she could reasonably say in light of the current state of knowledge. It was in the interests of justice that the additional evidence be considered and heard. The evidence was of such significance that the verdict, which was reached in absence of it, must be regarded as a miscarriage of justice. The test in *Cameron* v *HM Advocate* 1991 JC 251 (at 260-261) had been met (see also *Kidd* v *HM Advocate* 2000 JC 509 at para [23] and *Megrahi* v *HM Advocate* 2002 JC 99 at para [219]).

Second appellant

[57] At the core of the appeal was whether the fresh evidence undermined Dr Hiremath's opinion. Dr Hiremath gave greater weight to her own experience than the multiple peer-reviewed publications which had been identified by Drs O'Keefe and Astrup. It was clear that she did not accept the conclusions of the research cited; some of which had been called for in a *Physician's guide to clinical forensic medicine* in 2000.

[58] The test of reasonable explanation was objective (*Campbell* v *HM Advocate* at 146-147). The intention was that the court should take a broad and flexible approach. At the time of the trial the best that could be hoped for was that an expert might give an opinion that there

was no evidence that the injuries had resulted from non-consensual intercourse based on their own experience and the limited research which had been carried out. The fact that Prof Busuttil was not willing to do so was a reasonable explanation of why evidence was not led to contradict Dr Hiremath.

[59] The situation now is radically different. New material is available. Its novelty is similar to that in *Gilmour* v *HM Advocate* (at paras [86]-[91]) and *D* v *HM Advocate*. The impact on the jury's original decision would have been considerable because it cast serious doubt on the scientific evidence upon which reliance had been placed by the Crown (*R* v *McIlkenny* (1991) 93 Cr App R 287; *R* v *Shirley* [2003] EWCA Crim 1976). At the time of the trial it had not been objectionable to ask an expert a question that touched on the ultimate issue before the court. Even now, the test was whether the expert was being asked to answer the issue for the jury as ultimate decision maker (see *Mitchell* v *HM Advocate* 2018 JC 67 at para [28]). None of the questions asked by the advocate depute, or by the defence, had been objectionable and therefore section 118(8)(b)(ii) was not relevant.

[60] Once the requirements of section 106(3A) had been made out, the test was that set out in *Megrahi* v *HM Advocate*. The fresh evidence had all the characteristics of reliable expert evidence (*Young* v *HM Advocate* at paras [54]-[55]). It would have had a material bearing on the determination by the jury of a critical issue at the trial. It was highly pertinent (*D* v *HM Advocate* and *McGinty* v *HM Advocate* [2006] HCJAC 8 at para [10]). It was of such significance that the verdict of the jury must be regarded as a miscarriage of justice.

[61] It was never appropriate to conclude that injuries of the type seen had been caused by non-consensual intercourse. It was not legitimate to use the observed injuries to say that intercourse had not been consensual. The research in the new publications was a

development of the science (*R* v *Cannings* [2004] 1 WLR 2607 at para 29). We now know that there is no connection between injuries and non-consensual intercourse. Science had proved that previous anecdotal evidence and that based on experience had been wrong. Scotland had dipped behind the rest of the world. If the court did not hear from Drs Astrup and O'Keefe, and allow Dr Hiremath to be cross-examined, that would give rise to a miscarriage of justice. Drs Astrup and O'Keefe's opinions was supported by 20 years of research. It was in the interests of justice that the evidence of the scientists be heard.

Third appellant

[62] At the time of the trial the amount of research which was available had been limited. There were a number of standard textbooks dealing with findings in sexual offences, but few dealt with whether or not the injuries found were consistent with consensual or non-consensual intercourse. *Mason's Forensic Medicine for Lawyers* (3rd ed) (1995) contained no discussion. *Knight's Forensic Pathology* (1996) said that:

> "Where vaginal or rectal tearing has occurred, or where there is obvious abrasion, bruising or laceration of the vulva, anal margins or perineum this can hardly be compatible with voluntary intercourse (at 885). Where the injury was relatively slight and confined to hyperaemia and oedema of the vaginal or anal entrances and where abrasion and bruising of the vulva was slight, although the presumption was that intercourse was by force, the possibility that it was voluntary, though over-enthusiastic, still existed."

McLay's Clinical Forensic Medicine (1986) reported that in less than half of the complaints were there injuries to the genital and anal areas. The author listed types of injuries that could be identified following sexual assault, including reddening, small lacerations or tears, genital or anal bruising, abrasions, incisions, hymnal transections, vaginal and anal lacerations, anal sphincter tone and anal skin texture. He mentioned that, although these may be indicative of sexual assault, their precise forensic significance was limited by a lack

of specific research. Some of the findings may have alternative non-sexual causes with which the doctor had to be cognisant. Simpson: *Forensic Medicine* (1996) (at 899) discussed the matters on which the doctors should be able to provide information, including whether the injuries were consistent with consensual, if enthusiastic, intercourse or indicative of forcible intercourse. There had been some studies available prior to the trial, but many commented on the need for a larger study. The Slaughter *et al* study was ground-breaking. It had found that 89% of those who complained of sexual assault had evidence of trauma or injury, compared to 11% of women who had consensual sexual intercourse. Nevertheless, the authors recommended further investigation.

[63] In relation to reasonable explanation, a broad and flexible approach had to be taken (*Campbell* v *HM Advocate*). Only one expert had been instructed in the case, standing the approach of the Legal Aid Board. Prof Busuttil did not disagree with Dr Hiremath although, from counsel's notes from the trial, he had indicated that the vaginal and anal findings could have been caused by recurrent consensual intercourse which would be consistent with sexual intercourse with more than one person in a short time or consistent with forceful intercourse. Dr Hiremath's evidence had gone beyond the terms of her report, with significant parts arising from questions asked in re-examination. The defence had taken the opportunity to consult with the Professor immediately after Dr Hiremath had given evidence. When told that she had said that the injuries to the genital and anal areas were such that the pain would point to non-consensual intercourse, the Professor said that Dr Hiremath had had the advantage of having seen the injuries. He was at a disadvantage and could not contradict her conclusions. The decision not to call him could not be criticised.

[64] If the tests regarding fresh evidence and reasonable explanation were met, the court had to determine whether it was of such significance that the fact that it was not heard at the original trial had to be regarded as a miscarriage of justice (*Gilmour* v *HM Advocate* at paras [81] and [82]). The medical research and studies did not support Dr Hiremath. If she had had access to the studies and research, her position would have been materially different. She accepted in her statement to the SCCRC that some of her conclusions were not based upon peer reviewed literature. She accepted that there were cases in which a woman could have injuries after consensual sex and no injuries or pain after non-consensual sex. Her statement that the combination of injuries made it more likely that the intercourse was non-consensual was not supported by the fresh evidence. She had accepted that the anal injury could have been caused by consensual or non-consensual sex. The evidence of Dr Hiremath assumed greater significance because of the difficulties with the complainer's evidence generally. A miscarriage of justice had occurred.

The Crown

[65] The issue in the appeal was not one of fresh evidence. The true issue was one of whether or not the defence should have objected to the questions which had been posed to Dr Hiremath. As an expert she was entitled to provide an opinion on what the injuries indicated. That was the type of evidence that the defence ought to have anticipated. If in doubt, the defence could have precognosced Dr Hiremath prior to the trial. The suggestion was that she had gone outwith the terms of her report. That was an admissibility challenge. No objection, however, had been taken. In that event the evidence became *in causa* (1995 Act, s 118(8)(b)(ii); *Liddle* v *HM Advocate* 2012 SCCR 478; *McFadden* v *HM Advocate* 2009 SCCR 902; and *Skene* v *Murphy* 1978 SLT (Notes) 2). In the absence of a defective

representation ground it was not possible to complain that the evidence, in relation to what was a live issue at the trial, should now be regarded as inadmissible.

[66] Section 106(3)(a) of the 1995 Act provided that a miscarriage of justice could be based on the existence and significance of evidence which had not been heard at the original trial, if there was a reasonable explanation for that. This was the essential key which opened the door (*Campbell* v *HM Advocate* at 261). Unless there was a reasonable explanation, the appeal could not succeed, no matter how significant the proposed new evidence might be (*Fraser* v *HM Advocate* 2008 SCCR 407 at para 131; *R* v *HM Advocate* 1999 SCCR 13 at 17 to 18; *Cameron* v *HM Advocate (No. 2)* at para [10]; *Lucas* v *HM Advocate* 2009 SCCR 892 at paras [21]-[22]). None of the reports, which had been prepared post-conviction, contained any material that was not available at the time of the trial. The fact that further material was available did not change that fact (*Johnstone* v *HM Advocate* 2013 SCCR 487 at para [57]). The reports provided a critique of the testimony at trial and came to a different conclusion. It was an attractive option for any appellant to seek further expert opinion with a view to supporting a ground of appeal. Similar material to that which is now being presented was available pre-trial. The research had concluded that there was little understanding of the connection between genital injury and non-consensual sexual activity. Counsel had been aware at the time of the trial of the correlation between injuries, pain and consent. A tactical decision had been made not to lead Prof Busuttil and such a decision did not satisfy the reasonable explanation test (*McIntyre* v *HM Advocate* 2005 SCCR 380 at para [33]; *Mills* v *HM Advocate (No. 1)* 1999 SCCR 202; *Campbell* v *HM Advocate* (1998) at 242 and 270). There has been no change in the mechanism of diagnosis which would result in the new evidence being regarded as additional (see also *Reid* v *HM Advocate* 2013 SCCR 70).

[67] If the reasonable explanation test had been met, the additional evidence did not have a material bearing on the critical issue at trial (*Megrahi* v *HM Advocate* at para [219]; *Kidd* v *HM Advocate* 2002 SCCR 513). The critical issue was whether or not the complainer had consented. The starting point was her own evidence. There was also the evidence of distress. The testimony of Dr Hiremath had not been wholly based on the genital injuries. She gave evidence on how the complainer had presented at examination. Although Dr Hiremath had said in chief that the injuries were indicative of forceful sexual assault, she had retracted this in cross-examination by accepting that it was a matter for the jury. She had also conceded that the injuries could have been caused by consensual activity. The appellants' new reports went no further than to express a view that no conclusion could be drawn as to whether genital injuries could be indicative of consent or non-consent. This did not materially change the testimony of Dr Hiremath when considered as a whole. The jury, applying their common sense, were entitled to conclude that the description of the observable injuries supported the complainer's account. Even if Dr Hiremath had gone beyond her remit, this had no material influence on the jury (*Gilroy* v *HM Advocate* 2013 JC 163 at para [65]). No miscarriage of justice had taken place.

Decision

[68] Looked at strictly, Dr Hiremath's statement in her evidence-in-chief "That there had been forceful sexual assault", constituted inadmissible evidence. Even post *Kennedy* v *Cordia (Services)* 2016 SC (UKSC) 59 (Lords Reed and Hodge at para [49], citing *Davie* v *Magistrates of Edinburgh* 1953 SC 34, LP (Cooper) at 40), that was an answer to the question which the jury, not the expert, had to answer. However, it would have been difficult for the appellants to have objected to the relatively open question which led to Dr Hiremath's answer, even if

they might have been more alert when the same question was asked in relation to the anal injuries. An objection may have been pointless. Dr Hiremath would have been able to provide her opinion on what had caused the injuries and to express a view on the degree of force used. The substance of her evidence would have been the same. This appeal is therefore not determined by section 118(8)(ii) of the Criminal Procedure (Scotland) Act 1995 which prohibits grounds of appeal which challenge evidence to which objection has not been taken. In any event, Dr Hiremath cured any difficulty by accepting in cross-examination that whether there had been an assault was for the jury to determine and that her view was simply that the genital injuries were consistent with an assault.

[69] Section 106(3)(a) of the 1995 Act allows a convicted person to appeal on the basis of "the existence and significance of evidence which was not heard at the original proceedings". The section is framed in terms of evidence and not facts. Since the appellants' experts did not testify at the trial, the content of their reports can be seen prospectively as evidence which was not heard (*Lilburn* v *HM Advocate* 2015 SCCR 320 LJC (Carloway),delivering the opinion of the court, at para [116]).

[70] There requires to be a reasonable explanation for the new evidence not having been heard; the court taking a "broad and flexible" approach to that question (*Campbell* v *HM Advocate* 1998 JC 130, LJC (Gill) at 147). In so far as the new evidence contains references to papers which have been published since the trial, there is little difficulty in accepting that it would not have been possible to lead evidence about them. However, the purpose of the new evidence, put at its highest, is to demonstrate that the existence of genital injuries, at least *per se,* is of no assistance to a determination of whether sexual intercourse was consensual or not. Where substantially the same evidence was available from other experts at the time of the trial, the new material cannot qualify as evidence for which there is a

reasonable explanation for it not being adduced at that time (*Johnstone* v *HM Advocate* 2013 SCCR 487, LJC (Carloway), delivering the opinion of the court, at para [57]).

[71] Testimony of a substantially similar nature could have been adduced at the trial (cf *D* v *HM Advocate* 2010 SLT 85, Lady Dorrian, delivering the opinion of the court, at paras [34] and [35]). The fundamental proposition that injuries cannot of themselves prove whether sexual intercourse was consensual or non-consensual is neither surprising nor novel, as is demonstrated by the cross-examination of Dr Hiremath on the issue. Prof Busuttil was in a position to give such evidence. Dr O'Keefe would have been able to do so, given his references to the 2000 edition of *A physician's guide to clinical forensic medicine* and to Slaughter *et al* (1997). The same applies to Ms Malmgren, who refers to the pre 1999 research, which Prof Shaxted also cited. Since the court is not persuaded that evidence of this general nature could not have been led at the trial in autumn 2000, the appeal falls at the first hurdle.

[72] In order to be significant, the new evidence would have to differ materially from that either given or available at the trial, at least in the absence of a reasonable explanation in the case of the latter. The evidence given at the trial by Dr Hiremath should be looked at as a whole. She described the pain which the complainer was in some five hours after the incident; the pain emanating from her vagina and anus, such that she was finding it painful both to walk and to sit down. Medical professionals, such as Dr Hiremath, are, for obvious reasons, usually skilled in detecting whether a patient's complaints of pain are genuine, fabricated or exaggerated. Whether the pain can be related to physical injuries is no doubt one aspect of this exercise but so is the doctor's experience in seeing and hearing other patients in similar situations. It is simply not an answer to Dr Hiremath's account of the extreme pain in which the complainer appeared to be, to say that pain is an immeasurable

and subjective phenomenon. There was, and is, no basis upon which to suggest that the pain was other than genuine and accurately reported. Dr Hiremath's evidence on this aspect was an important element in the overall assessment of the complainer's account.

[73] It is axiomatic that injuries may be caused by trauma arising out of consensual or non-consensual sexual activities. There is nothing new or surprising about this. It was widely understood at the time of the trial and would certainly have been well-known to those representing the appellants. It does not require research to demonstrate it. It would be obvious to the jury. Injuries, such as those to the complainer, in the form of bruises to three different areas of the spine, and parallel fingernail scratches to the abdomen, may have been caused in the course of consensual intercourse. However, where there are multiple sites of injury, they are nevertheless indicators of violent activity whether that is consensual or not. They are supportive of an account which describes the use of force, even if there might be a contrary explanation.

[74] The same general considerations apply to genital injuries. Depending upon the particular description of the incident and its coincidence with any injuries found, their finding is corroborative of the use of force. The use of force is indicative of lack of consent, even if the injuries might also be consistent with consensual activity. Whatever the incidence of injury in consensual intercourse cases may be, it remains important for forensic medical examiners to examine those alleging rape for physical injury, especially in the genital area, in order to ascertain whether what is found by the FME is consistent with what was described by the complainer.

[75] The report from Drs Hiremath and Flynn concluded that what had been found was consistent with blunt force trauma caused by penile penetration in the vaginal and anal areas. Dr Hiremath testified that the inference which she drew from the condition of the

genitalia was that there had been "forceful sexual assault". She said that that condition was one of the worst that she had seen. That is not, and cannot now be, disputed. Dr Hiremath had been examining female genitalia on a daily basis for many years. In relation to the anus, she considered that a lot of force had been used to cause not only the tears but also the external and internal bleeding.

[76] Having said that she inferred that forceful sexual assault had occurred, Dr Hiremath accepted under cross-examination that she could not conclusively say whether the activities had been consensual or not, but that they were more likely to be non-consensual. She appeared to recognise that she had gone too far in referring to a forceful sexual assault having happened, since that was a matter for the jury. What she was saying was that the injuries were consistent with such an assault. She did not dispute that they were "equally consistent with prolonged, rough intercourse" but that, whatever had happened, "these injuries are still bad". When it came to her charge to the jury, the trial judge made specific reference to this passage of Dr Hiremath's evidence, even though none of the appellants had described their activities as "rough".

[77] The contention is that Dr Hiremath would not have been entitled to give that evidence in the current state of medical knowledge and that, in continuing to hold to her views, she was and is ignoring advances in medical research. This is not borne out by the terms of the reports from Drs Astrup and O'Keefe or from the content of the papers to which they refer. In analysing this, the court has taken the content of the reports at their highest but applied a degree of scrutiny to the words used. It is important to note the limitations of the exercise which they carried out. They focused on the genital injuries, whereas Dr Hiremath's view stemmed not just from these, but also from the marks on the complainer's torso and her evident extreme pain. The jury's task was even broader;

involving not only all of the considerations which Dr Hiremath described, but also the accounts of the persons in the fourteenth floor flat about the complainer's distress in the immediate aftermath of the events which had taken place eleven floors below. All of this required to be considered alongside the impressions given in court by respectively the complainer and each of the appellants.

[78] Neither Dr Astrup nor Dr O'Keefe appears to have been asked the crucial question of what they would have made of the injuries in this particular case. Rather, their function, has been to critique Dr Hiremath at a theoretical level rather than to express an opinion of their own from a neutral standpoint. The limitation which this imposes reflects that which no doubt prompted Prof Busuttil's view that, despite his view that the reported injuries were consistent with "vigorous intercourse", he was not in a position to contradict Dr Hiremath's conclusion, since she had the advantage of actually having seen the complainer. Prof Busuttil, like Drs Astrup and O'Keefe, may have been able to speak generally about the absence of scientific certainty in relation to the occurrence of injuries in consensual and non-consensual cases, but there is no substitute for a physical examination of the patient. FMEs consider injuries in the particular circumstances of the individual case.

[79] Dr Astrup does state that the genital injuries do not "corroborate" the allegation of consent or non-consent. In this statement, she is presumably using "corroborate" in a non-legal or perhaps a scientific sense to mean that, of themselves, they do not prove one thing or the other. That is undoubtedly correct. The question, however, is whether the injuries, when taken as a whole, confirm or support the complainer's testimony of rape (*Fox* v *HM Advocate* 1998 JC 94, LJG (Roger) at 101). For the injuries to be of corroborative value in a legal sense, they do not require to be more consistent with the complainer's account than that of the appellants or with other theoretical possibilities. If the question is asked whether

Dr Hiremath's findings of pain and multiple genital, anal and other injuries, are corroborative of the complainer's account, then the answer must undoubtedly be "yes"; whether or not all of these phenomena might have been caused as a result of consensual activities.

[80] In reality, the genital injuries, even when taken in isolation, are more consistent with non-consensual than consensual activities because, as is clear from the new material, multiple injuries are more commonly seen in cases of non-consensual intercourse. That is what Dr Astrup says in her report when talking of "the frequency of multiple genital injuries [being] significantly higher in victims of rape than in consenting women". She also refers to injuries, other than those at the posterior fourchette, being less frequent following consensual intercourse. Prof Shaxted too refers to the prevalence of genital injury being greater after rape. Dr O'Keefe's references to Slaughter *et al*, Lincoln *et al*, Sommers *et al* and Song and Fernandes all point in the same direction. The same applies upon a reading of Anderson *et al* and McLean *et al*. Although a single genital injury may not in some cases yield any inference as to consent, the greater the incidence of injuries, the more likely it is that the complainer did not consent. This does not detract from the statement in Song and Fernandes that the presence or absence of consent should not be derived from physical injury findings alone. As the authors state, evidence in sexual assault cases must be interpreted on a case by case basis. That is presumably why the textbooks on forensic medicine set such great store on a full and accurate physical examination of the complainer. That is what Dr Hiremath carried out.

[81] It is entirely legitimate for skilled witnesses to express an opinion based upon their experience in the field. The absence of peer-reviewed articles to support that opinion may

be a matter for comment but, in the absence of literature of a contradictory nature, its value as an undermining tool is limited.

[82] It is important to discount the theoretical in any consideration of the new material. Redness and swelling might be "ambiguous entities", which are potentially caused by a variety of aetiologies. An anal tear might also have a variety of causes. None of the various alternative causes, which have been mentioned by Drs Astrup and O'Keefe, were actually present in the complainer's case. They can be discounted in favour of a consideration of whether the state of the complainer's genitals and anus, as among the worst that Dr Hiremath had seen, confirmed or supported the complainer's account of having been raped. It is no doubt also true that the incidence of lubrication may vary from situation to situation, but it does not seem to be disputed that it is more likely to be extensive in a consensual situation and that the lower the level of lubrication, the higher the prospect will be for redness and swelling to be produced.

[83] Although reference was made to the 2000 edition of *A physician's guide to clinical forensic medicine*, there was no reference to the current edition (*Clinical Forensic Medicine: A Physicians' Guide* ed Stark 2020) which might be thought to represent the modern view. This reviews the literature (at 89) and quotes Dr O'Keefe from 2008 to the effect that it has not been possible to identify clinical signs which reliably distinguish non-consensual from consensual intercourse. It points out that consensual intercourse can result in significant injury. This does not detract from the proposition that, where a rape complainer is found in significant pain, with genital, anal and other injuries, a matter of hours after the event, these findings make it more likely that her account of rape is true. The degree of that likelihood depends on the severity and location of the injuries when considered in the context of the individual complainer's account.

[84] Mason's *Forensic Medicine for Lawyers* (6th ed, 2015) refers (at para 15.22) to "anecdotal reports and published small series [showing] that genital injury can occur after consensual intercourse". It then cites the figures in McLean *et al* whereby, out of 5000 complainers, 22.8% had a genital injury, whereas only 5.9% of those having had consensual intercourse had an injury. None of the new material produced suggests that forensic examinations for genital injuries should be discontinued on the basis that they are irrelevant to a determination on consent.

[85] In short, the court does not consider that the research into genital injuries involves a significant development in medical science . If anything, it confirms Dr Hiremath's testimony at trial. The research may be new, but the facts are not. When they are seen against the background of the other evidence in the case, the court does not consider that the new material is of such significance that its absence at the trial must be regarded as having produced a miscarriage of justice (*Megrahi* v *HM Advocate* 2002 JC 99 LJG (Cullen), delivering the opinion of the court, at para [219]). The jury heard the testimony of the complainer, the evidence of those in the fourteenth floor flat and the testimony of Dr Hiremath. They listened to each of the appellants give evidence in which each denied that any force had been used and that the complainer had been a willing participant in what had gone on throughout. She was, according to the appellants, "fine" when she left their flat, yet she was in a state of extreme distress and pain by the time she returned to her friends with the injuries which Dr Hiremath described. The new material which, in broad terms, points to the fact that genital injuries can, and are, found after consensual sexual activity would have added nothing of substance to the equation which the jury were left to resolve.

[86] The appeals are refused.