

THE ANATOMY OF RAPE.¹

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THE legal definition of rape is "carnal knowledge of a woman by a man, unlawfully and by means of force, against the will and without the consent of the woman." This is practically the same in all civilized countries, the one great difference being the age when consent is allowed by the law. Carnal knowledge may also be rape, even where no resistance is offered, when the victim is idiotic, asleep, or insensible from drugs, or other cause, so as to be in a state of *non compos mentis*.

Another point of the utmost importance is that complete penetration with the ejaculation of semen is not necessary to constitute rape, but that merely partial penetration, by the male organ, between the lips of the vulvar orifice, with or without ejaculation, is sufficient.

We can, therefore, see that it is sometimes difficult, and often absolutely impossible, to say whether the penis has merely impinged upon, or has penetrated just inside, the vulva, unless the amount of violence used in its introduction has been sufficient to cause abra-

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sion or laceration. This, however, would not apply to very young virgins, for the disproportion between the male organ and the vagina would most certainly cause some traumatism and, consequently, leave its mark behind.

On the other hand, this condition would not likely be present were the woman of more mature age, or if she had had coitus many times or borne children, for the tissues would then have lost, to a greater or less extent, their tonic contraction, and have become more yielding, and have thus enlarged the genital passage. Rape, under such circumstances, would not be so apt to leave any sign behind it, unless great violence were used.

In a healthy virgin, we would expect to find the labia majora well developed, covering almost completely the nymphæ, which in turn hide the orifice of the vagina. Upon separation of these we come to the hymen, which is, perhaps, of the greatest value in determining whether defloration has occurred or not. It should, however, be remembered that the hymen may persist after coitus, that it has been found perfect after labor, and that it can also be ruptured in other ways than by the male organ.

The hymen is composed of mucous membrane and usually has an aperture, oval in shape, from which it receives the name annular hymen. It can, however, have many different shapes and openings, and is sometimes imperforate, but has never been found congenitally absent in a well-authenticated case by a careful observer. In young children it has been found intact after violent coitus, owing to the size of the male organ and the consequent absence of complete penetration. With the condition of the hymen, also, the probability of forcible connection varies; for in a thick, dense, and unyielding membrane with a small aperture, complete connection could not take place without more or less laceration, which, on the other hand, a thin and elastic hymen would not be so likely to show.

The writer has had in his care just such a case, where conception occurred, although an absolutely perfect cribriform hymen was present. In this hymen the three openings were all too small to allow of penetration by the male organ, but the hymen itself was very thin and yielding, and could be pushed back fully two inches within the vagina. In this case it was necessary to divide the membrane before delivery could be accomplished.

The presence of a perfectly normal hymen is, therefore, not always absolute proof that virginity exists, for there may have been merely partial penetration into the vestibule of the vagina without injury to the hymen, but the evidence is always strongly presumptive that complete connection has not taken place when the hymen is intact.

In fact, there are many cases that, taking the size of the male organ into consideration, we can say absolutely that connection could not have taken place, even with the consent of the female, without injury to the hymen. This, however, is not altogether in accord with some of the older writers, who state that connection may take place without leaving behind it any evidences of penetration, and that this may happen, even after the use of force, as in rape.

In the writer's own experience, he has been able on several occasions in supposed virgins to discover evidences of coition, which had occurred but a few times and a short time previously. This was after a careful inspection of the parts, especially the condition of the hymen, and was done with the purpose of determining the presence of possible pregnancy in the first and the second months, when it was impolitic to ask the question, where only a mere suspicion had been raised, as to the question of conception being present.

To him, however, the chief interest in this subject lies in those cases where there is a suspicion of partial *immissio penis et non emissio seminis*. The evidences for detection in such a case would often prove difficult and sometimes impossible, especially so if but little force had been used, from the youth, mental condition, or insensibility of the victim. To approach this subject properly, however, the external organs of generation should be considered from an anatomical stand-point.

According to Gray's "Anatomy," "the labia majora are two prominent longitudinal cutaneous folds, extending downward from the mons veneris to the anterior boundary of the perineum, and inclosing an elliptical fissure, the common urino-sexual opening. Each labium is formed externally of integument, covered with hair; *internally*, of *mucous membrane*, which is continuous with the genito-urinary mucous tract; and, between the two, of a considerable quantity of areolar tissue, fat, and a tissue resembling the dartos of the scrotum, besides vessels, nerves, and glands. The labia are thicker in front than behind, and joined together at each extremity, forming the anterior and posterior commissures."

Hart and Barbour, however, deny that the internal surface of the labia majora, and the nymphæ in their entirety, are composed of mucous membrane, but in reality of a fine thin skin and not mucous membrane, covered by an epithelial layer. Be this as it may, we can thus see that that portion of the vulva bounded by the edge of the mucous membrane on each labium anteriorly, and the insertion of the hymen posteriorly, makes a space that could be penetrated slightly by the male organ, without showing any evidence whatever of injury to the hymen itself, and yet, could that partial penetration

be proved, it would constitute rape as surely as if complete connection had taken place.

Marks of violence just *inside* the vulvar orifice could then be taken into account, but nothing outside the line of mucous membrane should be medico-legally considered. We can thus see that the expert's duty is one requiring the greatest amount of care and judgment, as well as an anatomical experience and an accurate knowledge of the external organs of generation.

Venereal disease would here play an important part in evidence of sexual contact or coitus in cases of alleged rape. The presence of the gonococcus proving absolutely the nature of the vaginal discharge. We must not, however, lose sight of the fact that specific infection can be contracted in many other ways, its presence only assisting in the diagnosis; and we must also remember that a genital catarrh, non-specific in nature, is very common.

Evidences of physical force are also of great importance, as bearing on this subject, but could not prove rape even if the violence was directed towards the genitals. Their nature should, however, be carefully considered, for they may have been inflicted in many different ways.

Of course, absence of resistance, on the part of the woman, as the result of moral force, fraud, states of unconsciousness, or hypnosis, should be carefully considered, especially so were the plaintiff an imbecile or an idiot.

In the consideration of this form of rape the following case is of interest:

X., 15 years old, was sent to the writer to determine whether rape had been committed upon her or not. She has always been feeble-minded and occasionally has fits. She had an attack of hystero-epilepsy in the office, immediately following the examination; with complete loss of consciousness, frothing at the mouth, convulsive movements of the voluntary muscles, and symptoms following of great nerve disturbance.

Three days previous to the examination, she avers that a man had entered the house, during the absence of the family, and by force had deflowered her. Her story was told in a straightforward way, and with every semblance of truth, the full particulars being carefully gone into.

On examination there was found a slight abrasion, as large as the little finger-nail, on the left side of the vulva, just *outside* the edge of mucous membrane, which is the line of demarcation. There was also a smaller mark of injury, just *outside* the posterior commissure. Either one might have been caused by the attrition of the clothing

in walking. The vulvar orifice presented a perfectly virginal appearance, and the hymen was absolutely intact.

Partial introduction of the left index finger, covered with vaseline, caused much pain, by the over-dilatation of the hymen, and had to be desisted from. The hymen formed a perfect ring around the finger, and was free from any nicks or evidences of over-distention. There were no signs of forcible penetration. A careful microscopical examination of the secretions of the vagina failed to show spermatozoa, only the normal rod bacteria of Dodderlein. An examination of all stains on the underclothing, by the microscope, was likewise negative. The conclusion, therefore, was, that rape had not been committed, notwithstanding the story of the plaintiff as told upon the witness stand.

The writer, after a statement of the methods used to determine the virginity of the plaintiff, properly replied to a question of the presiding judge, that, to the best of his knowledge and belief, she was still *virgo intacta*. The defendant was discharged.

This case clearly shows the difficulties which might have arisen, had the abrasions about the vulvar orifice been just *inside* instead of just *outside*, the line of demarcation. For under such circumstances there would have been grounds for the belief that rape had been attempted, and probably committed, although the cause of such abrasions could not have been satisfactorily determined. Just such a question was asked by the prosecuting attorney, during the case under discussion, and the answer was in the negative.

A brief summary of this paper would be as follows :

(1) That complete penetration, with the ejaculation of semen, is not necessary alone to constitute rape, but that merely partial penetration of the male organ, between the lips of the vulvar orifice, with or without ejaculation, is sufficient.

(2) That defloration of a very young virgin, even supposing that force was not used, should show evidences of rape, from the very disproportion in size between the penis and the vagina.

(3) That the hymen is of the greatest value in determining whether coitus has taken place or not, notwithstanding the unanimous opinion of the older writers to the contrary.

(4) That there is a line of demarcation, formed by the edge of the genital mucous membrane, *within* which, impinging of the male organ, with or without the ejaculation of semen, would as surely constitute rape as though complete penetration had occurred.

(5) The great difficulty and often absolute impossibility of determining whether rape has been committed, when only partial penetration has been secured, and ejaculation has not taken place.

(6) The inability to successfully differentiate between marks of violence due to the penis and abrasions from attrition caused by walking, or some form of traumatism.

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