Jobert (de Lamballe) makes an incision from the preputial orifice on each side of the frænum as far as the corona glandis; then cuts off the frænum, which is now included in a small triangular flap; and finally unites the skin and mucous membrane by the interrupted suture, thus leaving the greater portion of the prepuce intact and merely enlarging its orifice beneath.[1]

These methods, unattended by any loss of substance, may suffice when it is desired simply to relieve uncomplicated phimosis; but when the mucous membrane is in a diseased condition, as is generally the case when an operation is required, circumcision should be preferred.

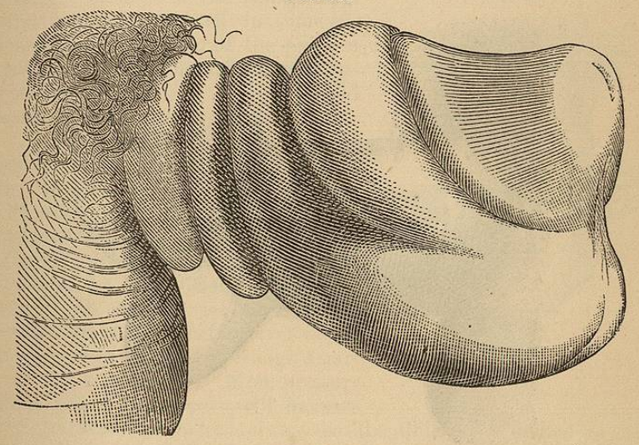
[1] Gaz. d. hôp., Paris, 27 Aug., 1861.

CHAPTER V.

PARAPHIMOSIS.

The term Paraphimosis implies exactly the opposite of phimosis, viz., the retracted prepuce cannot again be drawn forward so as to envelop the glans. This condition is often met with in boys with a tight prepuce, as the result of their first attempt to expose the glans; again it may follow coitus with a woman whose vulvar orifice is small, or it is often produced by patients themselves by retraction of the prepuce for the purpose of inspecting or dressing some venereal affection with which they are afflicted. Having thus exposed the glans, and ignorant of the danger of thus leaving it for any length of time, they allow the prepuce to stay back, and soon find it impossible to bring it forward again. The tight preputial orifice has acted

Fig. 31.



Paraphimosis. (After Jullien.)

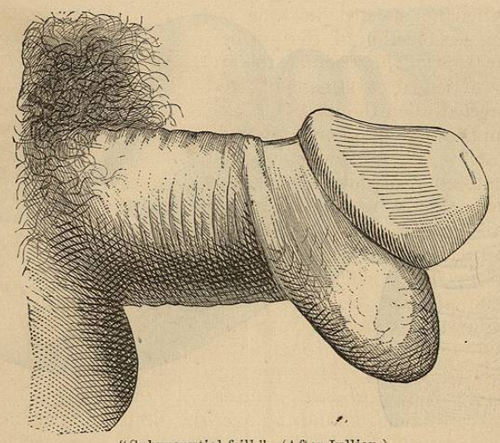
like a ring constricting the penis; the glans has in consequence become congested and swollen, and in any attempt at reduction the preputial ring meets with obstruction from the abrupt base of the corona, such as the knuckle offers to a tight ring on the finger. The swelling goes on increasing; the submucous and sub-integumental cellular tissues become infiltrated with serum, and the parts present the appearance represented in Fig. 31.

Now it is to be observed that the constricting ring, the preputial orifice, is buried in the first furrow seen as we proceed from the base of the glans backwards; the swollen fold between it and the glans is the preputial mucous membrane retracted; the folds back of it are folds of the integument of the prepuce and body of the penis; the greatest amount of the œdema is found in the lax cellular tissue below in the neighborhood of the frænum; the glans itself is swollen and tilted backwards so that the meatus looks somewhat upwards.

If the case be left to itself, nature's course (we can hardly call it cure) is as follows: The constricting ring, in its portion upon the dorsum of the penis, is attacked by ulceration and gangrene, first involving only the skin and subjacent cellular tissue, and appearing as a series of antero-posterior fissures, which soon unite and form a transverse open ulcer with irregular borders. The ulcerative process deepens until it has eaten through the fibrous ring beneath, when the constriction is relieved, the patient's suffering is at an end, and the œdema soon disappears.

All cases, however, do not terminate thus fortunately. The ulcerative process may result in gangrene, involving a large portion of the

Fig. 32.



"Subpreputial frill." (After Jullien.)

integument and the glans, and even opening into the urethra. Venot[1] reports a case in which one-third of the glans was lost. Auger[2] relates a case, in which the urethra was opened to the extent of one centimeter (four-tenths of an inch). Through erosion of a vein or artery, copious hæmorrhage may occur. Suppurative inflammation

[1] J. de méd. et chir. prat., Paris, 1836, p. 347.
[2] Union méd., Paris, 1872, p. 91.

may invade the cellular tissue and destroy the integument of the penis to a greater or less extent. Erysipelas, phlebitis, and lymphangitis are still other dangers to which patients with paraphimosis are exposed.

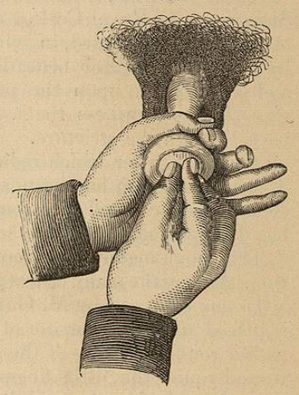
In all or nearly all cases, which are not early treated, adhesions form between the skin and the upper surface of the corpora cavernosa, rendering any later attempt at reduction impossible. Moreover, after the patient has been relieved by the destruction of the ring and the ulceration has healed, these adhesions remain. A depressed cicatrix is left by the ulcer, and the lower portion of the prepuce, which is now redundant, continues swollen and thickened. The appearance of the organ is well represented in Fig. 32.

Under these circumstances, a subsequent operation is evidently required to restore to the organ its pristine condition.

The above symptoms are those of the inflammatory form of paraphimosis, which is the most common. There is another indolent form, in which there is scarcely more than mere œdema of the prepuce without inflammatory action, and in which reduction is easily effected.

Treatment.—When called to a case of paraphimosis, it may not be advisable to attempt reduction until the œdema has first been diminished by rest in the horizontal posture, elevation of the penis, and a saline cathartic, assisted in some instances by scarification of the swollen tissues in front of the stricture, the application of ice, or a stream of cold water directed upon the part.

Fig. 33.



Attempts at reduction are extremely painful, and it is hence desirable to put the patient under the influence of ether. Chloroform should not be used in this nor in other minor operations, if ever. The difficulty of reduction is frequently increased by the vicious manner in which the attempt is made. The swollen glans and mucous layer of the prepuce are to be passed through a narrow preputial orifice. Mere pressure from before backwards will increase their transverse diameter and augment the difficulty of reduction; this can be best accomplished by compressing, and, if necessary, elongating them, and drawing the constricting ring and integumental layer over them.

Multiple punctures with a lancet should be made in the swollen tissues in front of the constriction, and these parts, after having been well compressed and kneaded between the fingers, so as to evacuate as much of the infiltrated serum as possible, had better be oiled. The surgeon then encircles the body of the penis with the thumb and forefinger of the left hand in the manner represented in Fig. 33, and thus

secures a base of support. With the fingers of his right hand, he now still further compresses the glans in its transverse diameter for several minutes, and then endeavors to insert the nail of his thumb or index finger beneath the constricting ring on its dorsal aspect, at the same time tucking under the latter the fold of mucous membrane in front. As soon as he succeeds in this attempt and can feel the ring riding up on his nail, he knows that no firm adhesions have formed, and he has an inclined plane on which to complete the reduction. His efforts, however, should not be for a moment relaxed until the whole is completed, or, otherwise, the parts will slip back into their former position.

M. Bardinet[1] employs a hairpin in a similar manner to the above. He describes his method as follows: "I bend the glans on its anterior (lower) aspect and gently draw the skin of the penis forwards from behind the constriction. I then attempt to insert the bend of a hairpin between the preputial ring and the body of the penis. This done, I have two levers in the branches of the pin, which I move back and forth for a triple purpose, to depress the prominence of the base of the glans, to elevate the preputial ring, and to secure an inclined plane upon which it may gently be made to glide."

Before Bardinet, however, the late Abraham Colles, Professor of Surgery at the Royal College of Surgeons in Ireland, succeeded, after other means had failed, in relieving two severe cases of paraphimosis, by passing a director beneath the stricture from before backwards, and elevating it upon the point of the instrument, while the stem was made to compress the swelling in front, and gradually force it back beneath the stricture. This process was repeated on each side of the penis, after which reduction was quite easy.[2]

After reduction has been accomplished, the parts should be kept elevated and covered with some cooling application until the swelling has disappeared.

The above methods are recommended as the most worthy of adoption. Among the many others proposed, we may mention the following:

In one proposed by M. Garcia Térésa, the centre of a piece of tape is placed upon the dorsum of the corona glandis, the opposite ends passed round the sides of the glans, crossed beneath the frænum, and wound round the little finger of each hand; the glans is then compressed by flexing the middle and ring fingers, and exercising traction in opposite directions, while the other fingers remain free to draw the prepuce forwards and accomplish its reduction.[3]

Dr. Van Dommelin effects compression of the glans by winding around it a strip of adhesive plaster half a yard long, and about a quarter of an inch wide, commencing at its base, and terminating near the orifice of the urethra.[4]

[1] Nouveau procédé de réduction du paraphimosis, Union méd., Paris, 1873, p. 900.
[2] Dublin Q. J. M. Sc., May, 1857.
[3] Rev. de thérap. méd.-chir., February 15, 1860.
[4] Med. Times and Gaz., London, June 4, 1859.

M. Seutin, of Brussels, has invented a pair of forceps with spoon-shaped extremities, to maintain compression of the glans until the constricting ring can be drawn over them.

The three preceding methods are designed for the purpose of compressing the glans during reduction; in the following, which is said to be employed with great success at the Children's Hospital, in Pesth, compression of nearly the whole organ precedes the attempt to restore the preputial orifice to its normal position:

The penis is first well cleansed and dried, when a strip of adhesive plaster, about three lines broad, is applied longitudinally from the middle of its under surface, over the swollen prepuce and glans, avoiding the meatus, to the middle of the upper surface. Another strip is carried in a similar manner from side to side over the glans, and, in large boys, a third, and even a fourth strip may be required to cover the whole organ. Finally, still another strip is firmly applied transversely over the preceding, commencing just behind the meatus, and continued by successive turns to the middle of the body of the penis. The application is said to be well borne, and the swelling so diminished within twenty-four hours that the plaster must be renewed; reduction can usually be effected within forty-eight hours.[1]

Many years ago, Mazade[2] extolled the effects of frequent applications of belladonna ointment. In one case of obstinate paraphimosis after three applications the prepuce was less engorged, and the glans less in size. The following day, after only three drachms of the extract of belladonna had been used, reduction was accomplished without difficulty. Jullien states that this result has since been confirmed by Moulas and Langlebert.

When reduction is impossible, and ulceration or gangrene threatens, it becomes necessary to relieve the stricture by dividing the preputial ring, which—as should not be forgotten—is situated at the base of the furrow, between the swollen folds of mucous membrane and integument. This may be done by entering a narrow, sharp-pointed bistoury flatwise, and from before backwards, upon the dorsum of the penis, turning its edge upwards, and dividing the stricture. In some cases this procedure must be repeated in several places, and the swollen prepuce freely scarified, before reduction, if not prevented by adhesions, can be effected, or at any rate before relief can be obtained.

It is an interesting historical fact that Ambrose Paré[3] believed it necessary to amputate the penis in cases of paraphimosis, in order to avoid gangrene and save the life of the patient.

The best operation for removing the deformity (Fig. 32) sometimes left by paraphimosis is one proposed by Mauriac:[4] two lines are drawn with ink, one anterior and the other posterior, both of them starting

[1] Schmidt's Jahrb., Leipz.
[2] J. de méd. et chir., prat., Paris, 1834, p. 445.
[3] Chap. xxxi., book xvii.
[4] Mémoire sur le paraphimosis, Paris, 1872, p. 28.

from the extremities of the transverse cicatrix on the dorsum of the penis. The anterior line is made to run parallel with the corona glandis, and about four-tenths of an inch from it. The posterior, starting from the same terminal points, is so drawn as to run behind the subpreputial tumor, which is now circumscribed by two curves forming an ellipse. An incision is now made following each line through the skin only; after which the subcutaneous mass, which is infiltrated and hypertrophied, is removed by a deep dissection. The edges of the wound are finally stitched together, and union by first intention almost always takes place.

CHAPTER VI.

FOLLICULITIS AND PERI-URETHRAL PHLEGMON.

These two affections resemble each other in their seat, but are entirely distinct in their anatomical characters, and demand different modes of treatment. The first is an inflammation of the follicles of Morgagni which open into the urethra; the second, inflammation, always resulting in suppuration, of the cellular tissue underlying the corpus spongiosum.

Folliculitis.—This affection is by no means common, but is occasionally met with in cases of gleet following severe attacks of urethritis. The mode of its production is as follows: The inflammation of the urethral mucous membrane extends to the cavities of the follicles, produces hypertrophy of their lining membrane and obliterates their ducts; hence the normal secretion of the gland mingled with pus is pent up in the cavity, which it distends in the form of a small tumor or intra-glandular abscess. These abscesses have been studied especially by Dr. Ch. Hardy,[1] who describes them as follows:

"In the early stage of its formation, this abscess or rather this cyst is often overlooked. Only when it has attained the size of a pea is it perchance noticed. It then appears in the form of a small tumor, either globular or ovoid, sometimes bilobed, occupying the lower surface of the urethra, to which it is attached by a narrow pedicle, which is nothing more than the obliterated and elongated excretory duct. This tumor is subcutaneous, hard, and movable under the skin, which preserves its normal appearance; it is little, or not at all, sensitive to the touch. When it has lasted for some time, and has attained the size of a small nut, it becomes soft, and possibly shows on palpation signs of fluctuation, which is rarely very distinct. These abscesses are often multiple. We have seen three in a patient who had had them over four months.

"These follicular abscesses pursue an essentially chronic course, and resemble very much, in their symptoms, and their mode of termination, the 'weus' that appear on the scalp. After remaining stationary for a long time, they suddenly become sensitive to the touch, increase rapidly in size, contract adhesions with the overlying skin, which, if they are not incised, they perforate and vent themselves by a narrow opening, which remains fistulous. They do not present the same danger as do abscesses of the peri-urethral cellular tissue: they show no tendency to open into the urethra.

[1] Mémoire sur les abscés blennorrhagiques, Paris, 1864.