

the piece of steel entered the anterior chamber. A small section was made in the cornea and the foreign body was easily extracted. No reaction or change of vision followed the operation.

This case again shows the unreliability of the Haab magnet to reveal the presence of a piece of steel in the eye; it shows the accuracy of this method of localization, but—what is here most important—the exact loca-

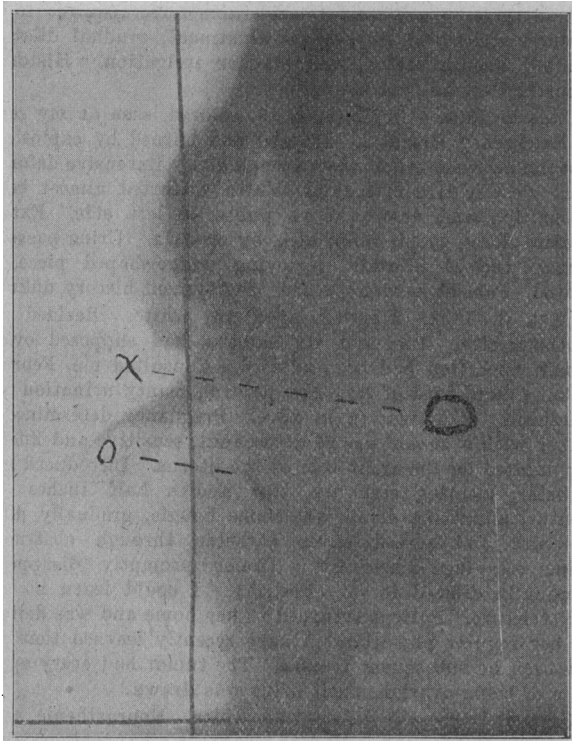


Fig. 10.—Case 3. Photograph 2.

tion of the foreign body enabled me to remove it successfully with the Haab magnet, while before localization I failed.

CASE 3.—Male, aged 36 years, blacksmith. Aug. 1, 1903, while striking a flying piece from the sledge hammer struck him in the left eye, destroying the sight instantly. Aug. 3, 1903, the patient was brought to my office by his oculist to try the effect of the giant magnet. Examination showed a penetrating wound of the cornea extending from the center down-

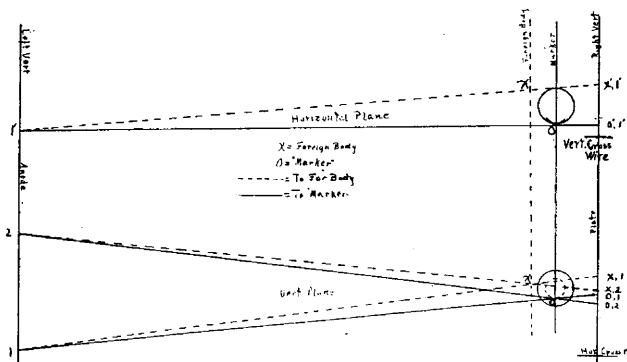


Fig. 11.—Case 3.

ward and slightly outward 8 mm., a corresponding injury to the iris and the lens, no reflex from fundus. Vision = 0, globe soft.

The result of application of the Haab magnet to the eye in various positions was entirely negative.

An x-ray photograph revealed the presence of a large foreign body in the orbit. Localization by the method detailed above showed the foreign body to be entirely outside the eye (see

diagram). Although it was not necessary, enucleation was done by the oculist in charge of the case as the eye was hopelessly blind, and the healing would require the patient's detention in the hospital, etc. Thus we obtained the proof that my localization was correct; the wound of exit of the foreign body was found in the posterior and inner wall of the globe. Both the wounds of entrance and exit were as clean cut as if made with a sharp knife. The axis of one wound being almost at a right angle to that of the other, showed that the foreign body twisted on itself in its passage through the eye. The wall of the eye was unusually thin.

This case again shows the necessity of exact localization, for it seemed quite improbable under the circumstances that so large an object would go entirely through the eye.

Because of the known position of the foreign body in the orbit the eye could have remained with perfect safety had a cosmetic result been of more importance than time and expense. The piece of steel in this case was 8 mm. in one diameter by 5 mm. in the other. We knew the foreign body to be quite thin from the faintness of the shadow in the x-ray picture, as well as from the clean-cut lines of the wounds.

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STRICTURES OF THE FEMALE URETHRA.

WITH REPORT OF CASES.*

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Strictures of the female urethra are narrowings of the intima of the canal of a greater or less degree, which impede or prevent the passage of the urine by the natural course from the bladder. They are congenital or acquired, single or multiple, and may be classified as stenosis or obstructive, atresia or retentive, atresia, non-retentive, when the urethra becomes occluded from disuse associated with vesicovaginal fistula and atresia with urine discharged through the umbilicus via a patulous urachus. Various modifications of these varieties are found associated with malformation of the bladder.

Congenital atresia are usually located at the neck of the bladder, or in the upper third of the urethra, but obliteration of the entire canal, or its absence, has been noted. Acquired cases, if traumatic, are situated at or near the site of the injury, while, if non-traumatic, they are found usually in the middle third of the urethra.

Statistics are lacking as to frequency. The few authors who mention the condition agree that it is uncommon. About twelve years ago I read a paper before a Washington society, reporting a case of acquired stenosis, with retention, calling attention to the absence of statistics, and the large number of standard authors who made no mention of the disease. Some recent text-books mention the subject only casually, while others do not mention it at all.

The causes are congenital malformation, traumatic, internal or external, associated with abnormal, prolonged or instrumental labors. Injuries of the genitals from burns, scalds, falls, cicatrices following operations and contractions from free use of caustics. Inflammation and infection from gonorrhea, urethral chancre and chancroid, septic instruments, urethral masturbation, tumors and adhesion bands in vagina. Tumors within the urethra are said never to cause stenosis or atresia.

The pathologic alterations resulting from congenital malformation, inflammation, infection, pressure and trauma, may present any degree of structural change

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from obliteration or occlusion of a portion, or the entire urethra with fistula and bladder ureter or kidney complication; to the simplest submucous connective tissue infiltration, restricting only slightly the lumen or elasticity of the canal.

The symptoms of acquired stenosis resemble those of cystitis, frequent, scanty, painful or difficult urination or retention. In some instances the urine is normal, leading to error in diagnosis by directing suspicion to surrounding organs, the tubes, ovaries or uterus especially when displacement exists. The urine may contain blood, pus or mucus, and hydronephrosis may result from retention. Congenital atresia without fistula presents unmistakable physical signs of retention or distention. Atresia co-existing with fistula or other malformations has no distinctive symptom, except the closed canal.

Diagnosis is based on discovery of stenosis or atresia by the use of olive-pointed sounds, bougies or metal catheters. The condition of urine, even in advanced cases, is often misleading. Infrequency of the disease causes delay in diagnosis; therefore, no physical examination in "disease of women" should be considered complete until the catheter has been passed into the bladder.

Prognosis is favorable in acquired stenosis or atresia, except where advanced bladder or kidney disease exists from infection or distention. In congenital atresia, it will depend on the complications in individual cases.

Treatment of acquired stenosis or atresia consists in gradual or rapid dilatation with olive-pointed sounds, bougies, metal catheters, urethral or uterine dilators, and in some cases, cutting or incision. Constitutional medication should invariably follow surgical correction of stenosis or atresia from urethral chancre. Cicatricial bands in the vagina contracting the urethra should be incised, stretched and loosened up. Bladder and urethral irrigation and flushing should be practiced in all cases. Treatment of congenital atresia will depend on the extent and the character of complications. It may be necessary, in extreme distention, to puncture the bladder to evacuate its contents, or incise, making either a vesicovaginal or a urethrovaginal fistula, before opening the atresia, closing the incision or fistula after the integrity of the reconstructed urethra is assured. Atresia complicated with vesicovaginal fistula should be dilated or incised, subsequently closing the fistula. Atresia complicated with urine escape at umbilicus through patulous urachus, should be dilated or incised without making a vesical fistula. After changing the course of the urine, the patulous urachus is supposed to close and atrophy. (A patulous urachus is sometimes observed in abdominal surgery.) Reed advises as follows:

Where atresia of the upper part of the urethra is associated with the vesicovaginal fistula, the operator may cut out the portion of the urethra and unite the neck of the bladder to the portion of the urethra below the excision. If atresia exists between a urethral fistula below and a vesicovaginal fistula above, the readiest way to deal with it is to thoroughly loosen up the tissue and bring the upper edge of the vesical fistula down to the outer edge of the urethral fistula. To unite such a fistula, however, a combination of the transverse and longitudinal operation may be done. A transverse incision may be made by making an artificial vesicovaginal fistula just above the neck of the bladder. The upper edge of this can then be stitched to the lower edge of the urethral fistula, and, after healing has taken place, the edges of the original vesicovaginal fistula can be closed by stitches placed so as to

bring the edges together from side to side, leaving a longitudinal scar.

CASE 1, 1892 (referred to above).—Widow, aged 23, white, Bladder trouble for several years. Many physicians consulted. Urination frequent, painful, scanty. Urine examination, sp. gr. 1022, neutral, trace of albumin, no sugar by microscope, blood, pus, but no casts. Within one week, retention of urine for 20 hours occurred, bladder became distended, violent pain with tenesmus. Metal catheter located obstruction in middle third of urethra. Considerable force required to pass through stricture. Subsequent treatment, gradual dilatation (to 36, French scale), and bladder irrigation. History of gonorrhea several years before.

CASE 2, 1893.—Single, aged 19, colored, seen at my service at Emergency Hospital. Injured and burned by explosion of shotgun between thigh when a small girl. Extensive deformity from cicatricial contraction. Vulva distorted almost beyond recognition and drawn above pubes to left side. External meatus closed to pin-point size, by cicatrix. Urine passed by drops. Incised cicatrix, removing wedge-shaped piece, and dilated. Patient never returned. Subsequent history unknown.

CASE 3, 1898.—Married, aged 25, white. Resided in a southern city. Pregnant six months, had supposed ovarian tumor, operation had been advised. Consulted me, February, 1898. Complained of frequent, painful, scanty urination since childhood. Examination in office. Pregnancy determined, together with a tumor size of a cocoanut, sensitive and fluctuating, located on the right side of the uterus. Introduced metal catheter, locating stricture two and a half inches from meatus, admitting small whalebone bougie, gradually dilated stricture and forced silver catheter through obstruction, urine escaping constantly. Tumor promptly disappeared. Gradually dilated to 36 (French). I could learn no cause for stricture. Patient returned to her home and was delivered by her regular physician. I have recently learned that there has been no subsequent trouble. The tumor had every appearance of being ovarian, until urine was drawn.

CASE 4, 1900.—Single, aged 28, white. Neurasthenic, almost a nervous breakdown. Bladder weakness since infancy, almost incontinence. Still wets the bed at night. Been in sanitarium for spinal irritation, painful coccyx and hysteria, urine normal. Examination showed a small caruncle, urethra inflamed. Two strictures found at middle third. Gradual dilatation. Improved in health promptly. Nervousness disappeared. Complete control of bladder day and night. Patient now entirely well and married.

CASE 5, 1903.—Single, aged 38, white. Pelvic symptoms for past 20 years. Polypus uteri, frequent, painful urination. Disturbed frequently at night. Polypus removed, uterus curetted. Urethra explored under ether. Five strictures of various degrees found. Rapid dilatation. Patient apparently restored to perfect health.

CASE 6, 1903.—Single, aged 39, white. Always in bad health. Under physician's care more or less all her life. Uterine disease for many years. Urination frequent, scanty, painful, often wets the bed. Urine always reported to be normal. Menses almost constant, profuse, with clots. Examination, uterus enlarged, anteflexed, marked pelvic adhesions, cervix eroded. Under ether broke up pelvic adhesions, curetted uterus, explored the urethra, discovering two small strictures close together at middle third. Rapid dilatation. Patient has been steadily improving in health. All old symptoms have disappeared.

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Poisoning by Honey.—The occurrence of severe poisoning following the ingestion of honey calls attention to the possibility of the collection by the bees of the active principles of some plants. Gelsemium and powerful narcotics thus have been the causes of giddiness, cardiac weakness, pruritus, amaurosis, edema of the glottis and even death. The occurrence is rare, but is to be remembered in view of the fact that the etiology in cases presenting some of these symptoms may not be readily discovered.