CARCINOMA OF THE PENIS SUPERVENING ON A VENEREAL SORE.

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SERJEANT K., aged 32, was admitted to hospital on December 2, 1933, suffering from secondary syphilis and an unhealed primary chancre on the glans penis.

On January 3, 1934, circumcision was performed and it was noted at the operation that the primary sore still remained unhealed. The patient was discharged from the venereal wards on January 1, 1934, and continued to attend as an out-patient for the full course of anti-syphilitic treatment.

In November, 1934, at a unit inspection for venereal disease, Serjeant K. was detected with a large penile "sore," which he had not reported. On November 11 he was readmitted to the venereal wards and treated for phagedenic ulceration due to "soft sore" until March 26, 1935. During that period no form of treatment by external applications had produced any effect in staying the progressive course of the ulceration and his condition, when sent to me for a surgical opinion on March 26, 1935, was as follows:

The whole of the glans penis was replaced by a foul, sloughing ulcer, with irregular everted rolled edge, from the base of which there dripped a thick purulent discharge. The urethral orifice could not be seen amidst the greyish granulation tissue forming the base, but the patient stated that he could micturate quite freely and that the urinary stream issued from the depths of the ulcer.

On the skin surface, about one inch from the distal extremity of the penis, was situated a pedunculated wart, the size of a sixpence, with no infiltration at its base, entirely separated from the ulcer, and showing no signs of malignancy.

On palpation, the ulcer edge was sufficiently hard to suggest an origin other than purely inflammatory, and the appearance of the ulcer in one or two places was sufficiently characteristic to warrant immediate removal of a segment for purposes of histological section.

Examination also determined the presence of moderately hard, enlarged and discrete inguinal and saphenous glands on both sides. On deep palpation of the lower abdomen, no enlargement of the lumbar glands could be detected. A portion of the ulcer edge, consisting of normal and diseased tissues, was removed under a local anaesthetic, novocain ½ per cent, and the patient was returned to hospital.
On March 28, the pathologist reported that the histological section showed a typical squamous-celled carcinoma of an active type.

On confirmation of the diagnosis by the pathologist's report, the patient was transferred to a surgical ward in the British Military Hospital, Hong Kong, on March 29, 1935.

On that date, general clinical examination of the patient failed to disclose evidence of secondary metastases elsewhere; no constitutional symptoms were present and no evidence of other diseases could be discovered. The local lesion was packed with sterile ribbon gauze soaked in a saturated solution of magnesium sulphate, and renewed four-hourly during the day time until the day of operation.

On April 3, Professor K. Digby, F.R.C.S., Consulting Surgeon and Professor of Surgery in the University of Hong Kong, was invited to see the case and he concurred in the proposed line of treatment by radical operation. He stated that his experience of radium treatment in similar cases had confirmed his belief that it was extremely unsatisfactory.

Six days' treatment of the ulcer with concentrated magnesium sulphate solution effected a considerable improvement in lessening the amount of purulent discharge and cleaning up the base.

First Operation.—Total amputation of the penis was performed on April 5, according to the technique described in Carson's "Modern Operative Surgery" (1924 edition). No sound, however, was passed along the urethra for fear of contaminating the bladder and posterior urethra with stray carcinoma cells, and, on account of the patient's age, the testes were not removed. On the conclusion of the operation, the stump of the urethra was sutured into the posterior angle of the perineal wound and no difficulty in micturition had been experienced by the patient since.

The anaesthetic employed was spinal stovaine (1.6 cubic centimetres), supplemented by a little open ether for the last quarter-hour of the operation only. The duration of the operation was one and a quarter hours.

The following morning, the patient evinced no signs of distress and appeared comfortable.

The indiarubber drainage tube, inserted down to the deep parts of the perineal wound was removed on April 7 and the patient was allowed up with a healed wound on April 15, ten days after operation.

Second Operation.—Performed on April 18, under spinal stovaine (1.6 cubic centimetres) anaesthesia, again supplemented by a little open ether after one hour.

Block dissection of inguinal and saphenous glands was effected on both sides through incisions extending from each anterior superior spine to one inch below the saphenous openings of both thighs. The incisions were convex medially, allowing clearance of fat, fascia and lymphatics from the spermatic cords on both sides, the dissection was carried down to the femoral vein and both internal saphenous veins were ligatured and excised
at their termination. No enlarged deep upper femoral glands could be seen or palpated. Before closure of the wounds, long indiarubber rolled glove drains (eight to ten inches) were laid in the long axis and brought out at the distal extremities. The operation again lasted one and a quarter hours.

The subsequent history of the patient is as follows:

The proximal and distal thirds of each wound healed by first intention. On each side some vascular impairment of the middle thirds of the skin flaps took place and resulted in a variable amount of sloughing and separation of skin edges. This was not surprising in view of the extensive undercutting and skin reflexion that was necessary for the removal of potentially involved tissue.

The areas affected corresponded to the flexures of the groins, and movements of the patient, necessitated by nursing, were undoubtedly a contributory cause. Good healing by granulation of these portions has been obtained.

A mild degree of lymphatic oedema of the lower abdominal wall, scrotum and upper thighs was first noticed on May 4. The patient has been getting up for longer periods since May 12; during this time the oedema has neither increased nor given any inconvenience.

At the present time the patient’s weight is 138 pounds, the same as on admission in spite of tissue removed during the two operations, and his urine is normal. Invaliding to the United Kingdom, at an early date, has been recommended in order that the patient may undergo supplementary post-operative irradiation by deep X-ray therapy, a procedure which is not available in this Colony.

Pathological Report.—Histological section of a portion of the ulcer edge and of the adjacent tissue removed for diagnosis shows irregular epithelial proliferation into the subcutaneous tissues. Large masses of squamous epithelial cells, undergoing active mitosis, with very little interalveolar connective tissue, are in evidence. No cell nests are present in the section. The condition is a squamous-cell carcinoma.

Coronal section of penis after removal shows macroscopically that a firm, hard, dull white neoplastic growth has invaded the body of the penis for a distance of one to one and a half inches proximal to the base of the ulcer.

Macroscopic inspection of inguinal and saphenous glands after removal showed them to be for the most part discrete and hard. One gland, larger and softer than the rest, exuded pus on section.

Histological section shows that many of the glands are almost entirely replaced by fibrous tissue, whilst in others invasion by carcinoma cells has occurred. The cells are of squamous type and similar to those seen in the primary growth. Cell nests are distinguishable in some places.
SUMMARY OF THE CASE.

(1) A case of squamous-cell carcinoma of the penis occurring in a serving soldier, aged 32, is described.

(2) The malignant neoplasm supervened on a venereal sore, of which the earliest official history dates back fifteen months.

(3) Radium treatment was not advised by a surgical authority acquainted with this type of lesion.

(4) Total amputation of penis, followed thirteen days later by complete block dissection of inguinal and saphenous glands on both sides, was accomplished, for the most part, under spinal stovaine anaesthesia without appreciable constitutional disturbance to the patient.

(5) The testes and sufficient scrotum to cover them were not removed; the patient experiences no inconvenience in the act of micturition.

(6) A certain amount of lymphatic oedema has resulted from removal of the glands, but, up to date, this has been insufficient to cause distress.

(7) The patient is being invalided to the United Kingdom, at an early date, for the benefits of supplementary post-operative deep X-ray irradiation.

Consideration of this case affords food for reflection on the undermentioned points.

(a) Did the primary chancre ever heal? The patient himself states that it did not, and there is no positive official evidence to the contrary. Too much reliance, however, cannot be placed on the patient's word in this matter, as disciplinary proceedings were being instituted against him for concealing the sore discovered in November, 1934. The proceedings were dropped when the terminal nature of the ulcer was discovered in March, 1935.

According to Professor Digby, this type of ulcerative carcinoma of the penis is of fairly frequent occurrence in China. It arises on the site of a previous venereal lesion in a patient of comparatively tender years.

It contrasts strongly with the papillomatous or hypertrophic cauliflower type of neoplasm occurring in elderly men aged 60 to 70 years, which is still recorded in the textbooks as the common type in Europe; that type which was horticulturally impressed on our student minds by the simile of "the rose on the watering-can spout."

(b) Should the glands be removed at the same sitting as the amputation of the penis? On analogy with radical amputation for carcinoma of the breast, it is obvious that they should. Against this, however, must be taken into account the heat of an operating theatre in a tropical climate in April; the ill-effects of a prolonged general anaesthetic to the patient; the additional risk of infection to the large fascial planes laid open during the block dissection of the glands; increase of shock due to the double extent of the operation area and operation time; the tendency on the part of the surgeon to be hurried and the removal of the glands to be less complete; and lastly, the advantage of the new method of urination being firmly established
and practised before the large inguino-femoral wounds of the second
operation require attention.

(c) Should the testes be removed? The textbooks say yes! But it is
evident that their authors are thinking in terms of the age-period 60 to 70
years. Removal of the testes increases the amount of mutilation, deprives
a young man of his testicular hormones and gives him cause for psychological
depression.

If the testes are invaded it is logical to presume that the lymphatics
accompanying the dorsal vein of the penis are invaded up to and beyond
the point where it divides and drains into the prostatic plexus and further
still to the internal iliac vein itself.

(d) Should not cancer be the bogey of the venereal clinic, just as syphilis
pops out from unexpected places in the surgical?

I am indebted to Lieutenant-Colonel H. H. Blake, O.B.E., commanding
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nursing staff for all their care and attention.

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PERINEPHRIC ABSCESS.

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I read with great interest Major N. Cantlie's notes on two cases of
"Perinephric Abscess," particularly the statement "The pain over the left
lumbar region would indicate a kidney or perinephric affection, but the
blood-count does not appear to indicate any severe degree of sepsis."

In view of the above, the following short notes on a similar case of mine
may be of interest:

On May 4, 1935, I was called to see a case in the medical ward.
Practically every diagnostic sign and symptom of perinephric abscess was
present, but with one very important exception—the blood-count was all
wrong.

On May 4, 1935, white blood corpuscles were 9,100.
On May 6 white blood corpuscles were 8,600.
On the evening of May 9 it was decided to explore the kidney the
following morning, as there was by this time a definite swelling over the
left kidney posteriorly.

On May 9, 6.30 p.m., white blood corpuscles were 13,000.
On May 10, 9 a.m., white blood corpuscles were 19,000.
On operating, about a pint of pus was evacuated which on examination
gave a pure culture of Staphylococcus albus.