

ing fluids, and fluids *in vitro* under different chemical conditions. That is, the liberation of free formaldehyd from hexamethylenamin depends on the excess hydrogen ion concentration of the fluid (true acidity).

This investigation is being continued so as to obtain more data, and a more complete report will be published later.

#### CLAMP RESECTION OF THE URINARY BLADDER

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The case which is the subject of this report is interesting from both a diagnostic and a technical point of view.

**History.**—The patient, a woman aged about 30, complains that during the last eight months she has been compelled to urinate frequently, especially on lying down, that each act of urination is rather painful and also that for the last six weeks the bladder has become the seat of spontaneous pains. The attending physician made a diagnosis of cystitis and tried to improve the condition by flushings of the bladder, which proved futile.

**Examination.**—I found, on examination, that the urine was cloudy, owing to the presence of a considerable amount of pus, the quantity of which was estimated to correspond with the quantity of albumin found. Kidney elements were not recognized. The cystoscope examination revealed the fundus and the trigon of the bladder and the ureteral openings to be of normal appearance. In the vertex of the bladder whitish excrescences were seen which covered an area of the size and shape of a quarter. The tips of these excrescences were dendritic and fluffy. The area was surrounded by mucosa raised in thick clumsy dark-red folds that were deprived of the normal gloss, and here and there a few submucous hemorrhagic patches were seen. In order to gain a clearer view of the base of this whitish centerpiece, finger pressure was exerted on the abdomen above the symphysis; the vertex of the bladder was inverted into the viscus and fluffy excrescences were seen to be located on top of a prominence that was surrounded by a circular ridge which gave a pronounced impression of rigidity. The dendritic excrescences were obviously phosphatic precipitations. The condition of solitary ulcer was excluded because such ulcers are sunk into the mucosa as if stamped with a die, while the bodily prominence stood out in relief; therefore the diagnosis was of an incrustated tumor. Such incrustations, as a rule, occur only on tumors that are "sick," that is, decaying on the surface, and only malignant tumors become "sick." The diagnosis, therefore, narrowed down to that of a malignant tumor of the vertex of the bladder surrounded by the inflammatory zone so frequently observed in the immediate vicinity of malignant bladder tumors. To increase the evidence the bladder was treated for a week with 20 per cent. argyrol instillations with no change in the condition or the cystoscopic appearance.

**Operation.**—The operative plan was the following: In order to avoid any handling of the growth during the operation with a subsequent inoculation of tumor cells into the healthy mucosa, after proper exposure the whole anterior aspect of the bladder was to be denuded of its peritoneal covering, and the top of the bladder clamped far enough down to insure the resection of the vertex vesicae in healthy tissue, the clamp being applied under the control of a cystoscope introduced into the bladder before the operation.

The tumor was extirpated by the following method: The bladder was flushed out and when the fluid returned clear the viscus was distended with 120 c.c. of sterile water, after which a Nitze examining cystoscope was introduced. The patient being under nitrous oxid-oxygen anesthesia, the bladder was exposed by a median incision and its anterior aspect was stripped bare, when it unexpectedly developed that the intended cystoscopic control of the clamp appeared to be entirely unnecessary. By palpation the insertion of the tumor and the surrounding zone of infiltration were demonstrated

very clearly. The top of the bladder was picked up with an appendix forceps and drawn upward. By means of a curved intestinal clamp armed with rubber tubing the vertex of the bladder was clamped off beyond the zone of infiltration in a cephalo-caudal direction. The sequestered part of the bladder was clipped off above the clamp and the first suture line was inserted. The clamp was then removed and a superseding suture line was laid. Muscle, fascia and skin were reunited save for a tiny drainage opening in the lower angle of the incision.

**Postoperative History.**—The patient began to urinate shortly after the operation and continued to do so up to the seventh day, at which time a small suprapubic fistula developed. For ten days, until the fistula closed, the urine flowed through the abdominal opening. Three weeks after the operation healing was complete. At this date the patient had to urinate rather frequently, the capacity of the bladder having been materially reduced by the extensive resection. Three months after the operation the patient was again able to retain 120 c.c. and cystoscopy at this date revealed that the inside of the bladder was apparently normal, the seat of the excision being marked by a slight distortion upward, evidently the result of the attachment of the vesical vertex to the abdominal wall. While the time which has elapsed since the operation is of course too short to allow a prediction of a permanent cure, still the operative result shows a technical success.

Macroscopically the specimen obtained by the operation was a disk 5 cm. in diameter. In the center the incrustated tumor was noted as a knob 2 cm. in diameter and 8 mm. high. Microscopically, the tumor proved to be a central carcinoma surrounded by an inflammatory area, and, so far as could be ascertained, the excision was made in non-carcinomatous tissue. The clamping off of the part of the bladder-wall to be resected was first suggested some fifteen years ago by a French surgeon, whose name, at present, I am unable to recall. Hagner some time ago tried to insulate a similarly located tumor by running sutures through the bladder-wall and beneath the base of the tumor under the control of the cystoscope.

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#### BRAZIER'S DISEASE, BRASS-FOUNDER'S AGUE, OR ACUTE BRASS-POISONING \*

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For want of a better title I have given the name of "brazier's disease" to the syndrome about to be briefly described. The literature contains articles dealing with acute brass-poisoning, brass chills, brass-founder's ague, *fièvre des fondeurs*, *Staubfieber* and *Giessfieber*, all of which refer to the same symptom-complex. The symptoms are characteristic of acute brass-poisoning or zinc poisoning and occur only in workers who have to deal with molten zinc or brass in foundries. Brass is an alloy of copper and zinc in varying proportions. Until recently only founders were exposed to these fumes, but the modern development of industrial science, the intensive development of every known mechanical device has automatically created new vocations and given rise to diseases not hitherto encountered. The perfection of the acetylene-oxygen torch has led to a marvelous degree of autogenous welding and has remarkably facilitated the art of brazing; but from this "brazier's disease" has arisen.

Acute brass-poisoning, such as occurs in founders, was first recognized by Thackrah in England in 1830, and it has since been occasionally discussed by foreign writers. George M. Kober of this city was one of the few American writers who have had occasion to call attention to this disease. The exceedingly interesting report by Emery R. Hayhurst of Chicago, read before the section on hygiene of occupations of the Fifteenth International Congress on Hygiene and Demography in 1912, is the most comprehensive publication on this subject, deals with it in great detail and is well worth study. Hayhurst, however, confines his remarks exclusively to the disease among founders and makes no reference to it as occur-

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