

the stylo-mastoid artery—which supplies the tympanum, mastoid cells, and semi-circular canals—that the method acts favorably. It is also well known that surface freezing lessens the conductivity of nerves, and profoundly affects nerve centres.<sup>1</sup>

The therapeutic management of purulent Eustachian salpingitis does not differ widely from that proper in cases of simple acute catarrhal inflammation, but the spray selected should be decidedly antiseptic, as well as sedative, in character, and the drum and middle ear demand the most thorough attention and treatment. Inflation should not be used unless the lower portion of the tube can be first cleared, and injections of fluids into the tympanum through the Eustachian passages have been found to be rarely valuable. Tonics are always called for, and complications will need special attention. Thorough treatment of the naso-larynx, antiseptic irrigation through the external canal, and the proper use of boric-acid powders, will cure all cases where neither a profound cachexia nor dead bone exists, the latter being causative of the luxuriant growth of granulation tissue so troublesome in many cases of this type.

In conclusion, it has been the experience of all aurists that in no region of the body are meddlesome therapeutics so ill borne as by the Eustachian tubes, and all methods must be carried out with the most cautious, painstaking conservatism, to insure good results, in all phases of Eustachian salpingitis.

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### HÆMO-HYDRO-NEPHROSIS, DUE TO A SLIGHT INJURY; DRAINAGE; RECOVERY.

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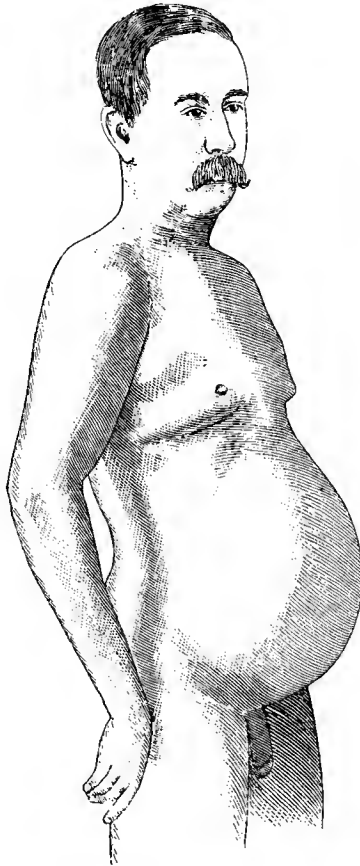
R. W., aged fifty-four, came under my care at the General Hospital, April 27, 1889, with a large tumor occupying the front of the abdomen, on the right side. It extended upward nearly to the costal arch, downward to the brim of the pelvis, and nearly to the middle line, but did not present at all distinctly in the lumbar region. Palpation gave the impression of a very tense cyst; there was no resonance over the front of it, such as usually exists in renal tumors. The skin and subcutaneous tissues moved freely over the tumor, but the muscles were tightly stretched over it, giving the impression that the swelling might be intra-muscular. His *history* was as follows: About two years before admission the patient's wife, when getting into bed, slipped, and knelt on his right side with some force, causing very severe pain for a short time. Six months ago he noticed a swelling on this situation as large

<sup>1</sup> See Dr. S. Weir Mitchell, in *Medical News*, September 3, 1887.

as an orange. This slowly increased in size until the last few weeks, during which time the increase in size has been rapid. The patient, formerly a fat man, has lately lost flesh rapidly.

Puncture with a hypodermic needle drew off brown-colored fluid, which contained blood-corpuscles, large granular or exudation corpuscles, and cholesterin.

The urine for twenty-four hours was forty-three ounces, specific gravity 1020, acid, without deposit, and free from albumin and sugar.



*April 30.* An incision four inches long was made over the most prominent part of the tumor, and on opening the abdomen a dense, white capsule presented itself, showing, over an area as large as a crown-piece, a staining with blood round the needle-puncture. The hand passed into the abdomen failed to find any intestine in front of the cyst, the limits of which, easily determined from the liver above, could not be defined in other directions, though the wide base evidently occupied the region of the kidney. A large trocar emptied seventy-two ounces of cocoa-like fluid with a slight urinous odor, and containing a large quantity of

cholesterin. Subsequent examination showed that this fluid contained 5 per cent. of urea. An incision was then made through the very dense wall of the cyst, which was fully one-third of an inch thick, and the cyst edge was stitched to the abdominal wall, a glass drain being inserted. Before this was done about another twenty ounces of fluid escaped, containing bits of dark-brown material, the size of marbles, evidently old blood-clot, and a layer of this material lined the inside of the cavity.

For the first few days all went well, the cyst being carefully irrigated twice a day, whilst there was a fresh discharge, evidently consisting partly of urine, with pieces of old blood-clot. The discharge then became very putrid, the temperature was considerably elevated at night, the patient got much thinner, there were profuse sweatings, and the urine passed by the urethra diminished in quantity until it fell to as low as sixteen ounces, with only 0.75 per cent. of urea, and it was constantly alkaline. The cyst was at the same time steadily shrinking, and as I could not but feel that nephrectomy under these conditions would pretty certainly prove fatal, I refrained from further operation. By the beginning of July matters had begun to mend; the temperature was practically normal, the urine rose to between twenty and thirty ounces, with increase in the amount of urea, and its reaction was acid, whilst the discharge, which was less offensive, diminished considerably.

*October 30.* The patient left the hospital, with a sinus still discharging, but otherwise well. The urine passed was fifty to sixty ounces in twenty-four hours, specific gravity 1014 to 1020, acid, and with no abnormal constituent.

He has now been at work several months, is looking well, and has regained the weight he lost. From the sinus there is a small amount of purulent discharge, smelling of urine, but it does not amount to more than a few drachms in the twenty-four hours, and is but a slight inconvenience.

I have placed before the patient the alternative to his present condition, viz: nephrectomy, but he is so well able to do his work and to get about that he declines to have any further operation done at present.

My explanation of the origin of the cyst is as follows: The injury referred to lacerated the kidney-substance, the split running into the pelvis, and, as no blood was seen in the urine, the ureter was probably plugged with clot. Hæmorrhage then, with retained urine, distended the pelvis of the kidney, and in all probability caused atrophy of the kidney-substance to a considerable degree. After the operation, when the cyst was suppurating profusely, the urine passed from the bladder became ammoniacal, and contained phosphates and bacteria, so there was probably a communication reëstablished between the remnant of the kidney-substance and the bladder, though it is doubtful if that still exists, as the urine is and has been for a long time acid, and free from phosphates, etc., whilst there is still a purulent discharge from the sinus.