

Examination of Calculi from the sub-lingual gland. By J. GORHAM, M.D. &c.

IN May last, a gentleman 22 years of age applied to me for a swelling and soreness of the left sub-maxillary gland. The next day it had increased in size and was painful. On the succeeding day severe inflammation had taken place. The swelling on the left side extended to the parotid gland, which was much enlarged, and from the maxillary glands it passed around the chin to the glands on the right side. The parts immediately below the tongue were swollen and inflamed, the inflammation extended to the mucous membrane of the fauces and larynx, a sense of stricture was perceived in the trachea, which rendered deglutition both painful and difficult, and much constitutional irritation was produced. By active treatment the inflammation was lessened, and the symptoms were less severe the morning following. Towards evening of the same day two calculi were discharged from the sub-lingual gland; his fever immediately subsided, and in a day or two he was well. I passed a probe through the orifice, from which these stones passed, to the depth of an inch and a half in the direction of the left sub-maxillary gland.

Each of these calculi was of the size of a small pea, and the weight of both about 7 grains. They had a globular form, and their surfaces, which were of an uniform light yellow colour, were finely tuberculated. Internally they exhibited a pure white, and were composed of delicate concentric layers apparently homogeneous in composition. These masses were sufficiently soft to allow of their being divided without much difficulty by the nail.

In order to ascertain their composition, a fragment was powdered and put into nitric acid, in which when gently heated it dissolved without effervescence. The solution evaporated to dryness left a grayish white powder, without any admixture of pink colour. It was redissolved, and the solution, saturated with ammonia, produced a white flocculent precipitate, soluble in muriatic acid, and precipitated by oxalate of ammonia. A portion of the calculus rubbed with quick-lime gave no indications of ammonia. A third portion dissolved in acetic acid, gave a precipitate with solution of acetate of lead. A fourth exposed to the flame of a blow-pipe, became black, exhaled the odour of burning feathers, then turned white, but suffered no other change. The residue, dissolved in muriatic acid, was precipitated white, by oxalate of ammonia.

From these results I concluded, that these calculi consisted of simple phosphate of lime and some animal matter.

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