

fall into the sinus: no deformity resulted, and no trouble has since been experienced.

An interesting feature in this character of cases is found in the tenacity on the part of the antrum, after operation, to maintain its office. The author

FIG. 579.—ANTRAL
CYST.



has tried his best to obliterate a sinus by compelling granular activity about its walls, but so long as he has been enabled to watch cases (and in one instance seven months elapsed before the overlying tissues so covered in the parts as to conceal it from observation), in none of them has he been able to satisfy himself as to what was the subsequent condition of the part. His impression is, however, that the mucous membrane maintains itself, and that a species of cavity continues to exist.

Hydrops antri is another form of cystiform enlargement of this cavity. The dilatation in these cases is gradual and painless, and when the bone becomes expanded to any considerable extent, fluctuation is commonly apparent, the vault of the cyst yielding readily to pressure. If obscurity exist, it is to be removed by the use of an exploring-needle. It sometimes happens in these cases that the floor of the orbit becomes the yielding point, or it may be the canine fossa, the tuberosity, or the hard palate; the latter boundary, however, according to common observation, is the most frequent seat of the enlargement, forming a tumor within the mouth.

Hydrops antri depends, in many cases, on the formation of a cyst within the cavity. In others it is to be recognized as a simple mucous engorgement, the natural outlet into the meatus being, from some cause or other, obliterated. A very expressive illustration of the first of these conditions was exhibited in a specimen taken some three years back by the writer from the antrum of a young man. In this case the cyst seemed to spring from the root of the second molar tooth, or from its immediate neighborhood; the mucous membrane being dissected up, and covering the cyst as a kind of reflex tunic. Although this particular tumor was not large enough to exhibit external evidence of its existence, yet there are no reasons for inferring that more extensive tumefaction would not eventually have resulted. A case of interest in this direction is recorded in the practice of Dr. Chase, of Iowa City, who reports it in the *Dental Cosmos*, accompanying the account with a diagram.*

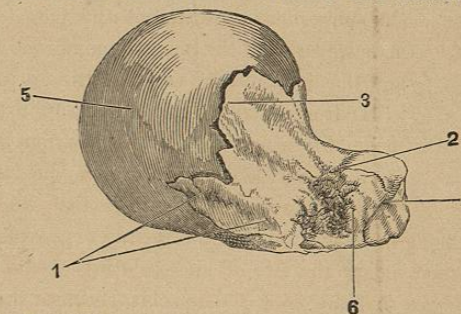
* DESCRIPTION OF CASE.—An Irishwoman, aged forty years, came to have the right first upper molar extracted. I found her teeth in a bad condition generally: they were decayed and loose, and the gums congested. This particular tooth was decayed and very loose. On pressing it, the alveolus seemed to move with the tooth. Adjoining it in front was the root of the second bicuspid,—the crown gone.

As she was of that class who make no attempt to preserve their teeth, I extracted the molar without hesitation. She had told me that her "jaw" had ached for three or four months previous to this time. On applying the forceps, the beaks readily passed under the gums

M. Giraldes refers to multiple cysts of the antrum ranging in size from a pea to that of a pigeon's egg. These cysts he describes as being found filled with a fluid, sero-albuminous, thin or glairy, and differing in color in different cases, being brown, yellow, or blood-shade. To the suppuration of them is

without lancing, and the tooth, much to my surprise, came away with a very slight application of force. But this surprise was not equal to my astonishment when I saw what I had brought away with the tooth,—namely, a large quantity of alveolar substance, the bicuspid root, and a fibrous connective-tissue tumor, nearly an inch in diameter, attached to the tooth, and inclosing two of the roots, namely, the posterior buccal and the palatine root.

FIG. 580.—SECONDARY CYST OF THE ANTRUM.



1, root of second bicuspid attached to alveolus; 2, neck of tooth and border of alveolus; 3, walls of antrum, palatal side; 4, centre of crown of tooth; 5, tumor; 6, tartar, covering the cavity of decay. The buccal aspect of the tooth was similar in appearance to the palatal surface which is seen in the engraving.

After being in alcohol three days, the tumor was nearly white, and had shrunken to one-third its original size. On cutting it open, it was found filled with a solid structure. The consistence was that of tubercle, or pressed cheese-curd; the color, light yellow, tinged in most parts with red.

The roots within the tumor were nearly free, and covered with their periosteum, which had thickened into a loose, spongy mass, extending even to the base of the body of the tooth. The appearance was like that of roots involved in alveolar abscess. The walls of the tumor were not composed of detached dental periosteum. There were apparently two coats, the outer fibrous, like periosteum; the inner a mucous one, like the lining of the nasal cavity.

The pathology of the case, as inferred by Dr. Chase, is that the tooth decayed to the pulp-cavity, and that the pulp, after repeated inflammatory attacks, died. Putrefaction occurred, provoking periodontitis; after a while suppuration occurred, and the disease became chronic. The periodontium became thickened and spongy, and continued irritation caused a proliferation of connective-tissue corpuscles, thus eventuating, finally, in the formation of the cyst.

This inference is, probably, the true explanation of the tumor. The trouble, however, seems to have been seated primarily upon the bicuspid and not upon the molar roots,—involving the latter secondarily. This tumor, although it possessed not the contents of the one operated on by the author, has a similar pathological signification: it constitutes an instructive example.

In cases of this kind it will be seen at a glance that, however patulous the natural outlet might be, the contents of the tumor could not by such means find egress. In the second character of cases, the contents are just within the cavity, but the engorgement of the tissue bounding the outlet has closed the foramen. A case described in the chapter on Diseases of the Antrum exhibits the dangerous and destructive effects of such accumulations when unappreciated and untreated.

attributed the occasional resistance of abscess to treatment. These cysts this author believes to be quite common, and that they are the explanation of many of the enlargements encountered. Their origin he locates in morbid changes of the mucous glands.*

A cystoma, meningocele, of grave nature—a self-explaining cyst of an entirely different nature from any referred to—is shown in Fig. 581. The tumor expresses a congenital deficiency in the occipital bone, and exists in a protrusion of the meninges of the brain. An operation being rendered necessary in this special case shown by reason of rapid increase in the size of the cyst, attempt was made by the author to strangulate at the pedicle by means of subcutaneous ligation. No shock or immediate ill result attended the accom-

FIG. 581.



Meningocele.—From a patient in the author's clinic.

plishment, but on the fourth day coma gradually came on, in which condition the child died three days later, without, apparently, having experienced a pain. Age of babe, ten months.

Very lately a patient presented himself to the writer having an immense cystiform enlargement of the lower jaw. The tumor was quite the size of a fetal head. Examination revealed an aneurism.

Fig. 569 exhibits the external appearance of an osteo-enchondroma operated upon at the Hospital of Oral Surgery. Fig. 570 shows the cyst uncovered. In this case the trouble

originated about the roots of certain diseased posterior teeth. The tumor is, of course, classifiable with the cystomata. It belonged to the self-explaining growths, although obscure until exposed by operation. Treatment consisted in removing the vault and scraping out the floor. Recovery was rapid.

Hydatid Cysts.—A tumor occupying the extreme end of the self-explaining growths is found in the hydatid cystoma. Here the origin, not being in a perversion peculiar to a part, is not without confusion in the way of diagnosis. The tumor is to be placed, however, in remarking the absence of all signs which relate it with common vice expression, and in observing that, unlike cancer, there is no disposition to invade neighboring parts. Local diagnostic signs lie in a peculiar resiliency and in the not infrequent presence of a fremitus. The treatment of a hydatid cystoma is by radical removal with the knife, otherwise by absorbable parasiticides or by injection of like agents.

* Recherches sur les Kystes muqueux du Sinus maxillaire.

CHAPTER LXIV.

THE TUMORS OF THE MOUTH.

NON-EXPLAINABLE TUMORS.

The Neoplasms.—Assuming the student as now appreciative of the principle on which all tumors belonging to the first division of our classification are diagnosable, we pass to those of the second.

As all lesions of the first class have their meaning in derangements purely local, after a like signification all growths of the second division are found of constitutional import. That is to say, repeating the basal principle of the arrangement. There are two kinds of tumors; only two kinds: 1, tumors arising out of local causes; 2, tumors arising out of constitutional causes.

There is one constitutional cause of tumors that is an arcanum. Besides this one there are other constitutional causes of tumors. These others, however, are understandable and appreciable; examples lie in the manifestations of syphilis, of scrofulosis, of scorbutus, of gout.

Accepting a tumor to be of constitutional import, diagnosis proceeds on the ground of getting accurate conception of the lesion through a process of exclusion. 1. In what systemic vice does the condition exist? 2. No appreciable vice existing, the growth pertains to the arcanum. The arcanum is carcinoma.

We pass to the study of carcinoma.

Every tumor is a cancer that is not something else. Learning and experience are capable of distinguishing the "something else."

Another aspect of diagnosis relates with treatment. All self-explainable tumors, whether of local or of systemic signification, possess in themselves the meaning and manner of cure; all such tumors are treatable on a purely scientific basis; cause is understood, cause is managed.

Unexplainable tumors are treatable alone mechanically; nothing being appreciated as to cause, medicine is not to be rendered applicable. To let such tumors alone, otherwise to cut them away, is all that surgery has yet learned.

Clinically: Tumors which are of a common manner of treatment belong under a common head:—Deduction: Fibroma and encephaloma having a single and common manner of treatment are—as treatment at least is concerned—identical.

Histologically: Tumors found to run into each other, no absolute line of