permits of more frequent slide reviews, which are of great value in stimulating the students to make more careful observations.

The laboratory notebooks obtained by this method are in every way superior to the ones which had been obtained formerly. At the end of his course, the student possesses a manual in which the photomicrographs have been neatly mounted, beneath which there is a brief but careful description of the lesion pictured, together with an abstract of the textbooks and the lectures. Such a manual possesses considerable value to the student as a work of reference. This method, used as a routine in the laboratory, has met and overcome several of the objections usually raised to the course in pathology. It has secured greater application on the part of the students during the laboratory periods, a greater amount of outside reading, more concise and accurate descriptions in the notebooks, and increased efficiency in the slide reviews.

No doubt there is a valuable training to be derived from the sketching of histologic preparations by the student, but we are convinced that the sacrifice of time is too great for its employment in the regular course in pathology offered to second-year students of medicine. In those courses in which accurate observation of fixed morphologic structures is the important thing, as it is in normal histology, sketching should be employed; but in pathology it is more important that the student should develop the ability to give an accurate word picture, and still more important that he should be trained to visualize the changes taking place so that they become a living progressive process to him.

The labor and expense attached to such a method are not excessive. After the negatives are made, the prints may be done by a professional photographer, who can be induced to do large lots at a very reasonable rate. The photographs can be sold to the student at cost, and the price will not exceed that of laboratory books in the other branches. The cost can still further be reduced, we have found, by the use of engravings made from the photomicrographs.

Students, of course, are given the privilege of making a collection of slides for themselves, and it has so chanced that with each succeeding class trained by this method, more men are preparing their own collections. Only those men in whom a real interest for pathology has been aroused avail themselves of this opportunity.

SUMMARY

The use of the loan collection and photomicrographs in the teaching of pathologic histology possesses the following advantages:

1. It compels the student to write concise and accurate descriptions of the specific cellular elements and of the lesions which they build up.
2. It allows the discussion or quiz to be followed in detail with much greater ease.
3. It gives time for the introduction of more experimental demonstrations.
4. It permits of closer correlation between the gross and the histologic pathology.
5. It enhances the value of the notebook.
6. Most important of all, it opens a greater opportunity for the student of medicine to do some thinking for himself.

ORBITOPALPEBRAL EMPHYSEMA CAUSED BY PERFORATION OF A DENTAL CANAL

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Orbitopalpebral emphysema is not a very common condition, but when it is found it is always of traumatic origin. Ordinarily it is the result of a fracture of the nasal, lacrimal or ethmoidal bones. It may, however, occasionally be caused by the dentist during the process of drilling the dental canal, as can be seen from the case which I here report. The condition is practically harmless and requires no treatment beyond a pressure bandage.

The diagnosis of the condition is comparatively easy. There is a sudden swelling of the lid and adjacent tissues, with no signs of inflammation, no redness, no pain. The swelling does not pit on pressure, but quickly rebounds, and there is a peculiar crackling sensation felt by the palpating finger, which results from the movement of air bubbles under the fingers. There is no exophthalmos in this variety of emphysema. Exophthalmos is present in emphysema of the orbit, but not in emphysema of the lid. Properly speaking, this form of emphysema should be termed "palpebrofacial," for usually the face is involved in the edema in addition to the lids. None of the textbooks mention mechanical perforation of the dental canal as a possible cause of emphysema, therefore this case should be placed on record.

Miss L. came to me accompanied by her dentist, who gave me the following history. While drilling on the mesial root of the right upper first bicuspid tooth he felt as if his burr entered a vacuum. He then tried to explore the region with a broach, which went in for a considerable distance. During this operation the patient felt no pain except some pressure sensation, which she attributed to the pressure of the dentist's thumb on her cheek. When the broach was withdrawn her lids suddenly began to swell, so much so that the right eye was entirely covered by the swelling of the upper and lower lids. The swelling spread all the way down the face and even the neck. I saw the patient about an hour and a half after, and found the face swollen, the lids, very markedly edematous, covering the right eye. The lids, however, could easily be separated. The asymmetry of the face as a result of the unilateral swelling gave the patient a hideous appearance. The skin of the lids and face was not tense and had no signs of inflammation. There was no pitting on pressure as the skin quickly rebounded. There was, however, marked crepitation under the finger's touch all over the lids and face and even down the region of the neck. Sneezing or blowing the nose had no influence on the swelling. My diagnosis was of course clear and easy: Palpebral emphysema caused by perforation of the dental canal into the antrum of Highmore and the upper bony roof of the antrum, through which the air must have gone into the subcutaneous tissues. This condition could easily be differentiated from a cellulitis by the sudden onset and the absence of inflammatory symptoms, such as redness and pain, and, of course, by the crackling sensation under the finger.

I applied a pressure bandage and the next day the swelling was considerably less. On the fifth day, while the swelling was practically all down, there was still present a slight crackling sensation indicating that not all the air had been absorbed. Seven days elapsed before all the symptoms disappeared. No other treatment was given except the pressure bandage for two days.

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