EDITORIAL

The Maligned Appendix

The vermiform appendix, accepted as a vestigial organ, has also become a reviled one. Excision of those in which no abnormal changes have occurred resulted in the unfortunate term of acute "remunerative" appendicitis. Ease in the development of the surgical skill needed for such an operation resulted in its being done by many members of the medical profession. Tissue committees in hospitals of all types have emphasized the appendectomies in analyses of necessary and unnecessary surgery. Ethics-committee members have also concentrated on the appendix in an effort to find fee-splitters. Pathologists, somewhat at fault, contributed to the problem by casual diagnosis, failure to take adequate sections, and concentration on the inflammatory lesion without consideration of the existence of other diseases. Then, of course, the so-called "interval" appendectomy became an accepted operation. Finally, the "prophylactic" excision during other operations centered attention on the structure. The result placed the appendix in the position of a malevolent imposter.

Clinical data on the appendix and its diseases are available in all the standard textbooks of surgery, medicine, and pathology, and in hundreds of articles. The correlation between signs and symptoms and the final histologic report must, of necessity, sometimes be at odds. That such a disparity does exist is even more emphasized by the polls conducted by representative groups. Twice in the past five years, such questionnaires have been forwarded to me. Though completed as accurately as possible from the available data, no summary of the surveys was ever received. It was simple to recognize that the major differences hinged upon chronic inflammation, the "interval appendix," and those in which there was no microscopic evidence of disease.

Because it is possible to err in the preoperative diagnoses or to be enthusiastic for an immediate appendectomy in certain instances, the organ is removed and submitted for study by the pathologist. This is the point which initiates potential friction. In the average laboratory several hundred appendices are studied each year. Familiarity may breed disinterest as well as contempt.
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It is quite easy to arrive at a simple conclusion and pass on to the next specimen. This is standard procedure. However, further microscopic review, more sections, or even special stains may indicate the presence of disease.

But what may be visualized in the tissue? If the appendix is studied correctly and if the lumen is explored, it is possible to recognize small gallstones, lead shot, fruit stones of small size, bristles, straw, and other vegetable fibers. Fecaliths are quite common and are often associated with an acute inflammation with perforation (for accuracy, appendices do perforate with subsequent peritonitis, however they do not rupture—which implies an associated violence or pressure). These are recognized by direct inspection.

In addition, both *Oxyuris vermicularis* as well as *Ascaris lumbricoides* may occlude the lumens of involved appendices. The former, when present in the actual wall are assumed to cause changes which will indicate their presence. Rarely *Trichinella spiralis* may be seen in the muscle coats.

Quite infrequently granulomas will develop around the base of the appendix near the cecum subsequent to an associated erosion of mucosa by a foreign body. These will simulate a neoplasm and may result in extensive surgery.

Decidual reaction on the appendical serosa as well as endometriosis here and in the wall are recognized several times a year in the hospital laboratory. The incidence is indirect relation to the number of sections and the intentness of study. Melanosis of the appendix is readily interpreted. Periappendicitis, either acute or chronic, is a common accompaniment of tubo-ovarian inflammations. (One exceptionally well-known pathologist of former years used to delight the younger men by giving the "sex of the appendix" on this basis). Thus far the association of pronounced lymphoid hyperplasia with thickened wall and stenotic lumen has not been confirmed by an established symptomatology. It is, however, recognized. The peculiar giant cells of the prodrome of measles are well documented.

In one instance, a bizarre clinical case was established as panarteritis nodosa because of the acute inflammation of arteries in one transection of an appendix. Another one has been associated with ulceration of the wall and perforation. Arteriolar and arterial sclerosis may often be diagnosed.