

CHART 1.—Heparin chart of a patient showing a good response to the administration of 1,000 units of heparin (10 mg.) per hour. The clotting time was maintained at a level of about 15 minutes (capillary tube method).

the dissection of an abdominal wall sinus, and the fourth bled from the vagina following total hysterectomy. There was one instance of concealed bleeding into the subcutaneous tissues of the leg. A low blood

ascorbic acid level was present (0.20 mg.).

In spite of the complications described, it is felt that heparin is of great value in the treatment of thrombo-embolic manifestations and in arterial surgery.

MEDIASTINAL CYSTS

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UNDER the classification of mediastinal cysts different authors have included pulmonary diverticula, pseudocysts, and pulmonary, esophageal, and cardiac herniations. Since a sufficient number of mediastinal cysts have been reported, a classification is suggested which would materially assist future cataloging of reports.

CLASSIFICATION

- (I) Parasitic cysts—echinococci cyst
- (II) Cysts derived from original germ layers
 - (a) Dermoid and teratomatous cysts
 - (b) Branchial cysts
 - (1) Simple branchial cysts
 - (2) Branchial cysts containing respiratory tract elements
 - (3) Branchial cysts containing gastro-intestinal elements
 - (4) Branchial cysts containing a combination of elements of the above three
 - (c) Cystic lymphangiomas
- (III) Cysts originating independently from pathologic processes
 - (a) Venous cysts

- (b) Pericardial cysts (pericardial and bronchial diverticula or herniations should not be included)
- (c) Simple serous cysts

Ecchinococci, dermoid, and teratomatous cysts have been fully discussed in the literature.

Branchial cysts assume any one of four forms. The first resembles the branchial cyst seen in the cervical region which is lined by either stratified squamous, columnar, or ciliated epithelium and which contains mucoid material and cholesterol. The second contains elements of the tracheo-bronchial tree. The third simulates the gastro-intestinal tract, some cases appearing like esophagus and others like the stomach. The fourth group contains a combination of the above elements. The cysts do not communicate with any viscus and originate in the region of the tracheal bifurcation.

Cystic lymphangiomas occur in any portion of the mediastinum and are similar to those found in the posterior cervical triangle.

Vascular cysts are rare but in every instance have been found in the superior mediastinum in close relation to the great

veins. Their pathogenesis is difficult to determine and most observers believe they are due to congenital venous aneurysms undergoing inflammatory occlusion of their ostia.

correct, then these cysts should be classified under "cysts derived from original germ layers."

These cysts differ from pericardial diverticula, in that they arise on the left side

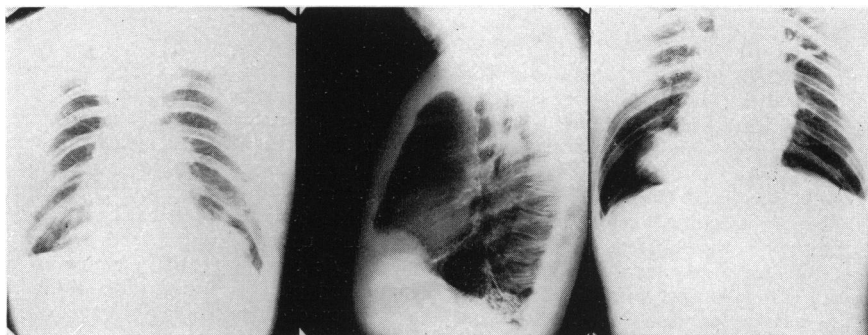


FIG. 1a.—AP view shows tumor mass at cardiac apex.

FIG. 1b.—Lateral view with pneumothorax showing tumor in anterior mediastinum.

FIG. 1c.—AP view with pneumothorax shows tumor attached to pericardium but not to pleura or diaphragm.

Pericardial and bronchial diverticula and herniations are not true cysts and therefore should not be included in the classification. A complete study of the literature was undertaken to rule out possible occlusion of their ostia by inflammatory processes. In only one case out of 45 was a closure of the opening found.

Eliaschewitz has reported the only intrapericardial cyst.

The literature reveals three reports on simple serous cysts. The report of our case is as follows:

CASE REPORT.—W. F., male, age 39, was admitted to the Wisconsin General Hospital complaining of abdominal pain of two months' duration and characterized by sudden sharp attacks followed by vomiting. Remainder of his history and the physical examination were essentially negative.

Roentgenologic studies of his gastro-intestinal tract showed a 5 cm. tumor immediately adjacent to the cardiac apex. Pneumothorax (Fig. 1c) showed the mass distinctly rounded and attached only to the pericardium. Lateral film (Fig. 1b) placed the tumor in the anterior mediastinum.

Exploratory thoracotomy revealed a cystic tumor (Fig. 2) which was readily peeled from the pericardium. Postoperative course was uneventful.

COMMENT.—If Lambert's theory, that these cysts result from embryologic rests, is

of the pericardium and produce symptoms related to the gastro-intestinal tract. In contrast, pericardial cysts occur on the right side and produce symptoms related to compression of the bronchus.

Jensen's test, presumably pathogno-

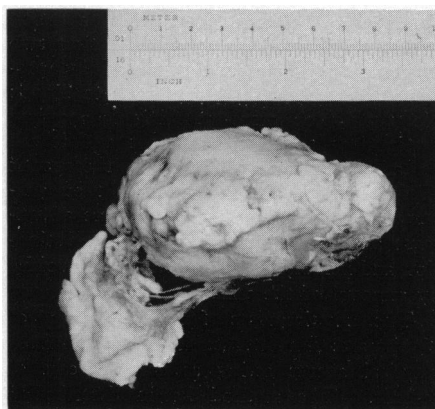


FIG. 2.—Photograph of tumor.

monic for pericardial diverticula was not carried out in our case. The repetition of it would have shown if a cystic mass is influenced by this test.

Artificial pneumothorax produced a more rounded change in the shape of the shadow, indicating this was a fluid-like mass. It also showed that the tumor was attached only to the pericardium.