Of an Operation for Tuberculous Empyema

Leo Eloesser, M.D.

Although Robert Burns in his ode to the louse on a lady's bonnet-string failed to note the sentiments of the main actor, his appraisal of the observed and the observer has remained standard for some 200 years, so poorly do we judge of our own performances. And now I have been asked to reflect on something that I had considered an insignificant bit of gadgetry, rather than to discuss other jobs that seemed to me not unimportant.

The gadget in question is the skin flap for draining empyema (Figure). The paper describing it, "An operation for tuberculous empyema" (Surg. Gynec. Obstet. 60:1096, 1935), was written 35 years ago. Antibiotics and antituberculosis drugs have modified its usefulness today; perhaps they also might modify the authoritative assurance of the author's earlier days. In the main, however, the basic assumptions that prompted the operation still hold: (1) that the pleura, as indeed any closed body cavity, resents a foreign intruder and reacts with infection, more or less severe, more or less extensive; and (2) that successful function of the flap is due to its valve action, that air escapes from the valve opening more readily than it enters, that this valve mechanism maintains negative pressure in the pleural cavity in spite of the partially open drainage, and that this negative pressure, in turn, causes the underlying lung to expand until, reaching the chest wall, it seals the inner opening of the flap drainage and obliterates the empyema.

Both thoracotomy and the flap should be sufficiently wide; if they are too narrow, the flap will be squeezed tightly enough against the sides...
of the incision to interfere with drainage. One may demonstrate the negative intrathoracic pressure by inserting a forceps into the incision when changing the dressings. Air will enter the chest with a sucking sound. The negative pressure may also be measured by introducing a tube connected to a manometer.

A flap with a lower instead of an upper base will have an opposite effect; air will be sucked into the chest more readily than it is expelled. Such a flap will create positive instead of negative intrapleural pressure. The flap in its original form is perhaps simpler and functions as well or better than a number of proposed variations. Antibiotics and antituberculosis drugs now permit more leeway and make less stringent the precautions against expanding a previously tuberculous lung.

Spontaneous tuberculous empyema, caused ordinarily by rupture of a small peripheral pulmonary focus into a free pleural cavity, is infrequent. Distressingly often in the past, the empyema followed that

(A) Flap of skin outlined. (B) Cross section of chest wall showing skin flap turned into chest and attached to pleura. (C) Skin flap turned into chest cavity; edges of defect approximated by sutures. (Adapted from recent sketches by Dr. Eloesser and from illustrations that appeared in the original article [Surg. Gynec. Obstet. 60:1096, 1935]. By permission of Surgery, Gynecology & Obstetrics.)
dangerous, widely practiced procedure, "therapeutic" pneumothorax, which today happily is consigned to oblivion. The flap, either alone or combined with decortication, is still useful in treating chronic non-tuberculous empyema.

A final confession: The promise that "details with X-rays, case histories, and other data will soon be published" was never kept. Other matters diverted my attention from gleaning these details and statistics.
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Leo Eloesser
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