Case Study: Bronchobiliary Fistula Secondary to Amebic Liver Abscess

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A 45-year-old farmer was admitted to our ward with fever, cough with expectoration and pain in the right hypochondrium for two months. The sputum was mucoid; there was no history of hemoptysis. Three months prior to admission, he had an attack of dysentery and since had had loose stools periodically.

Examination at the time of admission revealed an ill-looking, emaciated individual with pyrexia of 38°C, pulse rate 100 and respirations 28 per minute, pallor and minimal pitting edema of ankles. The liver was enlarged 5 cm below the right costal margin and was highly tender. The lower right intercostal spaces were bulging and the skin was edematous with marked intercostal tenderness. The cecum was palpable and tender. The percussion sound on the right infrascapular region was dull, the air entry here was diminished and marked crepitations were present. Other systems were within normal limits.

Laboratory investigations revealed a total leukocyte count of 7,500/cu mm with 51 polymorphs and 49 lymphocytes. The hemoglobin was 7.5 G and ESR 44 mm in the first hour. The sputum was negative for acid-fast bacilli. The stool showed trophozoites of Entamoeba histolytica. Blood urea was 20 mg percent. The liver function tests showed thymol turbidity 5 units, serum bilirubin 1 mg percent and alkaline phosphatase 14 KA units. Chest x-ray film, revealed a homogeneous opacity of the right lower zone. A diagnosis of amebic liver abscess with pleural pulmonary complication was made.

Antiamoebic treatment with dehydroemetine, chloroquine and diiodohydroxyquin (Diodoquin) were instituted along with supportive therapy. Liver aspiration was performed and 900 ml of chocolate-colored pus was removed. No ameba could be demonstrated in the aspirated pus. However, the next day the patient started expectorating chocolate colored sputum. This also did not reveal any ameba. Pleural aspiration did not yield any pus. His general condition was improv...
In the subsequent two days, all chocolate-colored sputum disappeared and was completely replaced by greenish liquid expectoration. This material answered qualitative tests for bile.

The next day a percutaneous abscessogram of the liver was performed with propylidone (Dionosil aqueous). The dye was seen entering the bronchial tree on posturation and a bilateral bronchogram soon developed (Fig 2). The abscess cavity below the diaphragm and the adhesion between the lung and the diaphragm could also be discerned (Fig 3). The patient's general condition improved rapidly with anti-amebic treatment, but biliptysis persisted. He refused any surgical procedure and was hence discharged after a course of anti-amebic treatment. Follow up showed that within one month the fistula closed and biliptysis stopped completely.

**DISCUSSION**

The first attempt to group cases of bronchobiliary fistulae was made by Courvoiser. Morton and Philip first defined this condition as a communication between biliary tract and the bronchial tree, in which bile is expectorated over a considerable period of time. Of the numerous causes of bronchobiliary fistulae, they found that 40 percent were due to Echinococcus, but bronchobiliary fistulae resulting from amebic liver abscess were few. The commonly described condition is bronchohepatic fistula, with anchovy-sauce sputum, which has to be distinguished from bronchoiliary fistula. In bronchoiliary fistula, bile is expectorated (biliptysis).

The condition carries a poor prognosis. Cooray observed progressive cachexia and cholangitis ending fatally. Surgical measures have failed to improve the prognosis and are associated with high mortality. Conservative treatment with antiamebic drugs gives the best results.

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**REFERENCES**

3. Courvoiser (1890): Quoted by Morton and Philips

**ANNOUNCEMENTS**

**Third Annual Cardiology Symposium**

Borgess Hospital, Kalamazoo, Michigan, will sponsor the Third Annual Cardiology Symposium, "Cardiology for the Practitioner," on November 9 and 10. For information, contact Dr. Roberto P. Barcala, Director of Cardiology Services, Borgess Hospital, Kalamazoo, Michigan 49001.

**Tenth Annual Cardiology Seminar**

The Rogers Heart Foundation will sponsor the Tenth Annual Cardiology Seminar on Selected Topics in Cardiology at the Holiday Inn, Freeport, Bahamas, December 1-4. The faculty members will be: Drs. Howard Burchell; Agustin Castellanos, Jr.; Roman DeSantis; Thomas James; Peter Nixon; Robert Schlant. The seminar will be directed by Dr. Henry J. L. Marriott. For information, please write The Rogers Heart Foundation, St. Anthony's Hospital, St. Petersburg, Florida 33705.