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Successful Amphotericin B treatment of a post appendectomy sinus associated with yeast-like organisms

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Summary

A case of visceral mycosis in a Sudanese male patient was described, a yeast-like fungus was incriminated as a causative organism. The case was presented in the form of post appendectomy sinus. Treatment with amphotericin B was very successful.

The present report is dealing with a case of post appendectomy sinus in a patient from Sudan.

Case history

A male worker in cement factory in Sudan, who did not visited or resided outside his country of origin. He is 31 years old, single. On May 1973 patient complained of acute appendicitis; seven

days after appendectomy, the wound discharged copious amount of yellowish pus. The wound was treated as post-operative infection and healed after one month. Since then, the patient was complaining of vague repeated attacks of abdominal pain and discomfort. On January, 1974, an abdominal mass was felt in the right iliac fossa, it increased gradually in size till it encreached upon

umbilical and right lumbar regions. By barium enema the mass was found to be pressing on the transverse colon (Fig. 1). The duodenojejunal loop was pushed to the left (Fig. 2). X-Ray chest (Fig. 3) revealed slight increase in both hilar shadows.

Biopsy from the mass was taken in Sudan during laparotomy. The histopathological report was that of a malignant connective tissue tumour.

During patients stay in hospital, an abscess appeared in the appendectomy scar for which drainage was done where a fistula resulted.

On April, 1974, patient was referred to Maadi Hospital in Cairo for irradiation of the tumour (Fig. 4). At that time X-ray chest was clear and barium enema revealed the presence of the mass previously described. The patient started treatment in the form of cobalt irradiation therapy, he received twelve sittings; during such therapy, the condition of

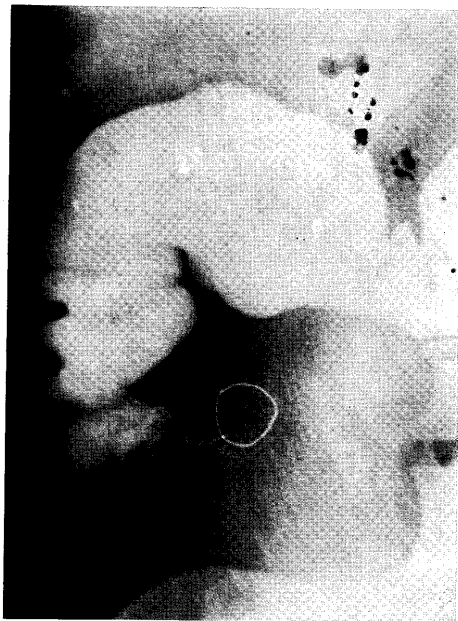


Fig. 1: Barium enema showing irregular filling defect in the area and in the middle part of transverse colon

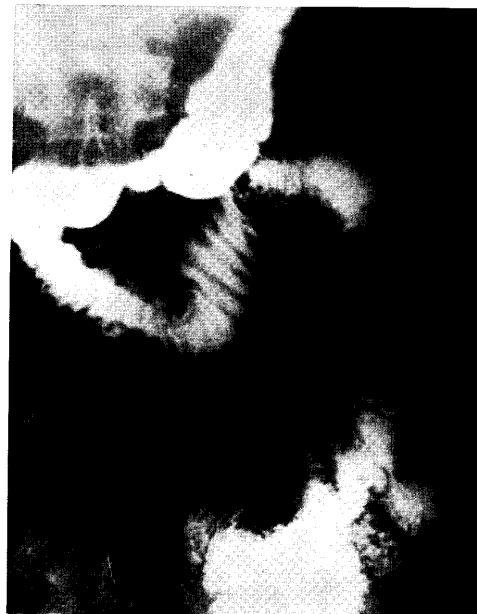


Fig. 2: Barium meal showing soft tissue mass pushing the duodenojejunal junction and upper jejunal loops pushed to the left

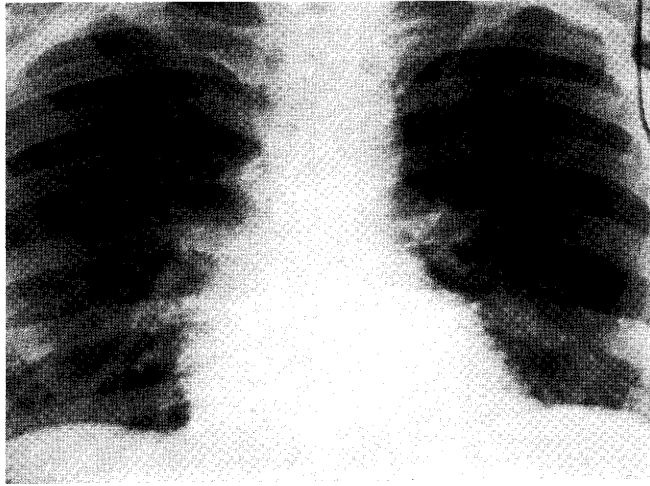


Fig. 3: Slight increase in both hilar shadows



Fig. 4: An abdominal swelling in right iliac fossa encroaching on umbilical area with two scars, a paramedian and appendectomy with fistulae in the scars

the patient was deteriorating and the fistular discharge became copious. The irradiation sittings stopped and exploration was carried on. The mass was found to be vascular with adhesions everywhere. Biopsy was taken and send for histopathological examination.

Histopathological report

H. & E. showed sheets and groups of vacuolated histiocytic cells together with many polymorphs, lymphocytes and plasma cells. Budding cells with deeply stained nuclear material appeared scattered in the field (Fig. 5) P. A. S. staining revealed large number of spherical thick walled organisms with clear double contour and many budding forms. The conclusion was that of chronic granuloma caused by a yeast like fungus. No evidence of malignancy was seen in serial sections examined.

Mycological and bacteriological examinations

On direct microscopic examination of the pus, round yeast cells with single buds and having thick walls were seen. The budding cell communicated with the mother cell with a broad base. The pus was transferred on Sabouraud's glucose agar containing chloramphenicol, blood agar, brain-heart infusion agar and MacConkey's medium. On the surface of all inoculated plates a heavy growth of Klebsiella appeared. It was not possible to isolate the yeast-like organism in pure culture. However, films from the cultures stained after Gram and Giemsa revealed the presence of thick walled yeast cells with single buds mixed with great numbers of the klebsiella bacilli.

Only on the base of the morphology of the organism in histopathological sections, in pus and in mixed culture, it was too difficult to identify and classify the budding cells exactly.

Treatment

Because of the detection of this yeast-like fungus and the possibility of being the cause of the disease, amphotericin B

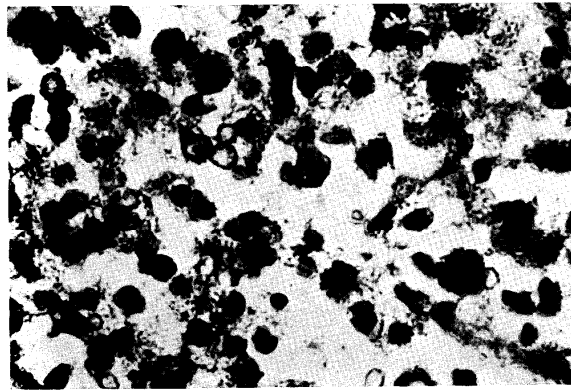


Fig. 5: PAS-stained section showing budding cells

Fungizone*) was selected for the treatment of this patient. Before and during treatment the patient was thoroughly investigated to detect in particular any blood dyscrasia or renal affection. Full blood picture before starting treatment was: Hb. 76 % = 11.2 gms/100 ml. blood, R. B. Cs 4, 220,000 per c.mm. colour index 0.90 total leucocytic count 9,000 per c.mm. 75 % neutrophils, 0 % eosinophils and basophils 24 % lymphocytes and 1 % monocytes. Platelets count was 320,000 / c.mm. Kidney function tests and blood potassium were normal.

Everything was going very well till he received 700 mg amphotericin B, where he started to have loss of appetite and developed jaundice. On examination, the liver was found to be enlarged, about 3 fingers below the right costal margin and firm in consistency. Liver function tests revealed: Total serum bilirubin 4.2 mg % serum alkaline phosphatase 17 K. A. units, serum Glutamic-Pyruvic Transaminase 120 I. U./L. Total serum proteins 6.4 gm. %, serum protein fractions: Albumin 54 %, globulin 46 %, α_1 -globulin 5 %, α_2 -gl. 10 %, β -globulin 9 % and γ -globulin 22 %. Hb. 67 % = 9.9 gm./100 ml blood., R. B. cs. 4,220,00/c.mm., colour index 0.79. Total white count, 16,500 c/mm. and the differential count: neutrophils 82 %,

*) Squibb.

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eosinophils 2 %, basophils 0 %, lymphocytes 14 %, monocytes 2 %. Platelets count 220,000 per c.mm.

Amphotericin B was stopped on the spot and medical treatment for the jaundice started. One week later the investigations revealed total serum bilirubin 30.4 mg %, direct serum bilirubin 24.8 mg %. Thymol turbidity 12 units %, Zinc turbidity 16 units %, serum alkaline phosphatase 55 K. A. units, serum glutamic-pyruvic transaminase 51 I. U./L., total serum proteins 6, albumin 2.7 gm %, globulins 3.3 gm % with albumin/globulin ratio 0.8/1. Patient asked to go back to Sudan to come back for consultation after one month, since then we did not hear any news about him for two month now.

Comment

In this case the yeast-like organism seems to play an etiological role. Because it was impossible to obtain it in pure culture, the nature of the fungus was a matter of discussion. Morphologically, *Blastomyces dermatitidis* came in consideration.

North American blastomycosis caused by this fungus, is known to be confined mostly to North America. However several cases were reported in different countries outside North America. SCHABINSKI et al. (1969) believed that the

disease is present also in Europe. EMMONS et al. (1964) reported North American blastomycosis in two African patients with no history of any contact with U. S. A. or with materials from the U. S. A. Moreover VERMEIL et al. (1954) reported a case of disseminated mycosis diagnosed as North American blastomycosis in Tunisia and BREGANT et al. (1973) reported two cases in the Zaire Republic.

Lung affection in this case was not evident. The presentation of the case with acute appendicitis is an unusual one as the intestinal tract is usually spared in this disease in contrast with South American blastomycosis. Unfortunately the removed appendix was not subjected in Sudan to histopathological or mycological examination.

Amphotericin B was given in the form of i. v. drip diluted in 5 % dextrose. The starting dose was 1 mg. amphotericin B/day in 500 ml. 5 % dextrose gradually increased to 50 mg/day given every other day. The main side effects of the drug were rise of temperature, excessive sweating, tachycardia, weak pulsations and shivering. These reactions were overcome by administration of aspirin tablets 600 mg and decadron 1 cc. l. m. at the start of the drip and another 600 mg of aspirin three hours later. At the same time cephalixin was given, two capsules (500 mg) every six hours for one week as specific treatment for *Klebsiella* infection.

One month after the beginning of treatment, the discharging pus was much reduced and the sinus in the right iliac fossa showed healthy granulation tissue at its lining. The sinus in the laparotomy incision was still lined with a pyogenic membrane. The general condition of the patient improved and he began to leave bed for short walk in the hospital.

The appearance of jaundice accompanied with enlargement of the liver which was firm in consistency, plus the values of the liver function tests indicate liver affection which is hepatocellular in nature.

The proper diagnosis was very difficult to establish in this case. This demonstrates the importance of myco-

logical examination which should be done routinely beside the bacteriological and histopathological examinations. The heavy contamination of the wound with *Klebsiella* made the isolation of the fungus impossible, although a large number of budding cells could be detected overgrown by the bacteria.

Zusammenfassung

Bei einem 31jährigen Arbeiter aus einer Zementfabrik im Sudan wurde im Anschluß an eine Appendektomie eine Wundinfektion beobachtet, die nach einem Monat abklang. Dann entwickelte sich jedoch in der rechten Fossa iliaca eine Tumormasse, die im Sudan histologisch für maligne gehalten wurde. Der Tumor sollte in Cairo einer Strahlenbehandlung unterzogen werden, was auch geschah. Der Zustand verschlechterte sich.

Histologisch wurden dann Sproßzellen nachgewiesen. Die Diagnose wurde in „chronisches Granulom durch hefeartige Pilze“ abgeändert. Die Pilze konnten kulturell nicht isoliert werden, da große Mengen von Klebsiellen die Hefen überwucherten. Die Behandlung mit Amphotericin B, Aspirin und Cephalixin führte zur Heilung.

References

1. BREGANT, S., P. GIGASE, J. P. BASTIN and J. VANDEFITTE: North American blastomycosis in the Zaire Republic. *Bull. Soc. Path. Exot.* 66, 77—92 (1973).
2. EMMONS, C. W., I. G. MURRAY, H. I. LURIE, M. H. KING, J. A. TULLOCH and D. H. CONNER: North American blastomycosis. Two autochthonous cases from Africa. *Sabouraudia* 3, 306—311 (1964).
3. SCHABINSKI, JORKE and WEITZE, cited by T. WEGMAN in *Infektions-Krankheiten*. O. GSELL and W. MOHR, Band III, Springer-Verlag (1969).
4. VERMEIL, C., A. GORDEFF and H. HADDAD: Sur un cas Tunisien de mycose généralisée mortelle. *Ann. Inst. Pasteur* 86, 636—646 (1964).

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