症　　例

LOBECTOMY FOR PULMONARY HODGKIN'S DISEASE CASE REPORT

ARMANDO PEGO BUSTO* and VICENTE JABONERO SÁNCHEZ**

Oviedo, Spain

Pulmonary lymphomas have had surgical interest since the publication of CHURCHILL (1947)[1]. Recently, several papers on this subject have appeared, among them those of VAN HAZEL and JENSIK[2], and ROSE[3], with original cases and a summary of the literature. There are very few cases operated for HODGKIN's disease; this is the reason for presenting here our case treated by lobectomy of the right upper lobe and radiotherapy postoperative and in the follow-up, and that survived thirty five months after the pulmonary resection.

CASE REPORT

I. P. S., a female, 42 years old (1955), married, complained of pruritus for a long time. October 1954, dry cough, irritative; a month later, without fever, whitish and later blood-tinged expectoration, right shoulder pain, anorexia, headaches, and nocturnal sweating. The physician of the village thought that the patient had pulmonary tuberculosis and treated her with the usual drugs for two months. The blood in the sputum disappeared, but weight loss and dyspnea during exercise persisted. Then, she consulted a specialist of a near-by town, who made the diagnosis of probable hydatid cyst (positive CASONI test) and advised operation. The patient was admitted to the Hospital Provincial of Oviedo, Service of Surgery (Surgeon-in-Chief, Dr. J. GARCIA MORÁN), in June 1955; by the courtesy of Dr. G. MORÁN this patient was treated surgically in his service by one of us (A. P. B.).

Physical examination revealed a woman in good general condition, although the skin and mucosa were slightly pale in spite of her brown color. Palpation revealed no enlarged lymph nodes in the supraclavicular, axillary or inguinal regions; abdomen was normal. Breath sounds were quite decreased in the middle-third of the right hemithorax.

Laboratory data: Red blood count 3,000,000, hemoglobin 65%,; white blood count 17,200, neutr. 81, bas. 0, eos. 1, lymph. 16, mono. 2; Katz index 52.5; bleeding time 3′ and clotting time 10′; Wassermann and compl. negative; urinalysis normal. Sputum: Negative for tubercle bacilli; numerous pneumococci.

*Chief, Service of Thoracic Surgery, Spanish Red Cross and Thoracic Surgeon, Sanatorio Miñor
**Research Fellow, Cajal Institute

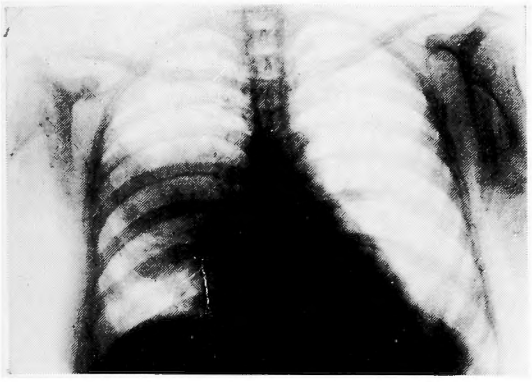

Fig. 1

Fig. 2

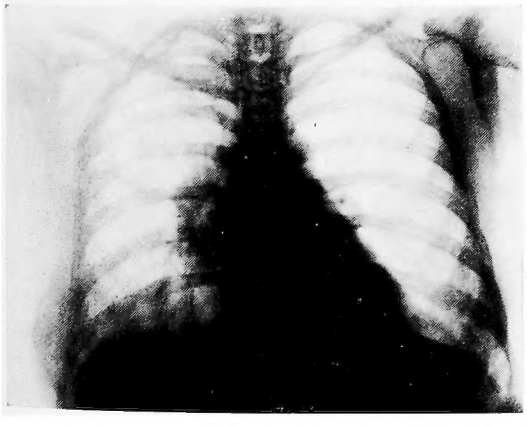

Fig. 3

X-rays of the chest showed a large opacity in the right lung (Fg. 1) extending from the mediastinum to the periphery, with homogeneous, indefinite or irregular edges, without cavities or calcifications; it seemed to involve (Fg. 2) the right upper and middle lobes.

Bronchoscopic examination: The mucosa of the trachea and bronchi was normal; discrete extrinsic compression of the right lateral wall, inferior part, of the trachea.

Since admission this patient had purulent-hemorragic expectoration and the temperature was normal in the morning and from 37.4°C to 38.6° C in the evening; the expectoration and temperature were not modified by antibiotics. We decided on operation after several weeks of preoperative treatment, without making a correct histologic diagnosis previously (abscessed tumor ?).

Operation, August 4, 1955 (A. P. B.): Right posterolateral incision, entering into the pleural cavity through the fifth intercostal space, cutting a short segment of the sixth rib; extensive pleural adhesions, more fibrous on the upper lobe; we could palpate a firm tumor mass involving the anterior and apical segments of the upper lobe, pushing downward the middle lobe, and enlarged hilar and mediastinal lymph nodes; the impression was that the tumor was not carcinoma and the nodes had not the typical aspect of the non-specific inflammatory processes; it was decided to do lobectomy of the upper lobe and postoperative X-ray therapy of the nodes after histological examination. For technical reasons,

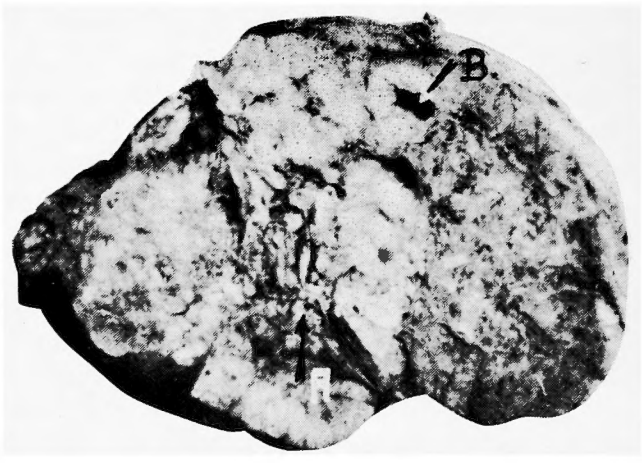

Fig. 4

as the enlarged hilar nodes in the anterior aspect of the hilum covered the vessels, individual dissection was carried out on the bronchus, arteries and veins; the tumor was easily dissected from the superior aspect of the middle lobe, because it had not crossed the incomplete fissure or the intersegmental plane; antibiotics were placed in the pleural cavity, two drainage tubes inserted and the chest wall was closed by layers.

The postoperative course was quite normal, except for some decimes and dry cough; then we discovered some right supraclavicular adenopathy. The patient was discharged on the fifteenth postoperative day for convalescence at home, but with the order to return next month for radiotherapy.

The pathologic examination done on the specimen fixed in formalin 10% revealed, a firm tumor mass (Fg. 4), measuring 12 cm in its greatest diameter, and the cut surface was of a grayish-white color; the mass involved the anterior and apical segments and extended into the posterior one; at the center, the tumor had an irregular cavity with pus (arrow A) communicating with the bronchus and in the superior and posterior part an isolated cavity (arrow B), not infected, filled with a white substance which had been partially removed in the photograph. The summary of the first pathological report (V. J. S.) was: "My personal impression is that it is a granuloma of HODGKIN, but the characteristics are not quite typical". Then, we sent several slides and photos of the specimen to Dr. A. ROTTINO, of New York, who very kindly wrote us his opinion[4]: "The problem presented is interesting but difficult. A lipid pneumonia, chronic pneumonitis and diffuse lymphoid infiltration are very prominent features. In one slide only did I find large pleomorphic cells resembling the STERNBERG-Reed cell: Hence there is a strong possibility that your patient has HODGKIN'S disease". In the study of more sections of the tumor were found STERNBEAG-Reed cells as stated in the second report (V.J.S.): "Other fragments of the specimen were studied and zones found in which the STERNBERG-Reed cells were very numerous, as well as the leukocytes (eosinophils and neutrophils) and plasma cells. There were found frequent mitoses, suggesting a sarcomatous change of the lesion" (Fg. 5).

Follow-up. In the second admission, Sep. 17, 1955, the patient was in good condition, gained several kilograms of weight, but the decimes and dry cough had continued and she had more enlarged supraclavicular nodes; the biopsy of one of these gave this histologic picture (V. J. S.): "Intense fibrosis with irregular division of the tissue. In the lymphoid zones appear large numbers of eosinophilic leukocytes, numbers of plasma cells, neutrophiles and numerous and typical STERNBERG-Reed

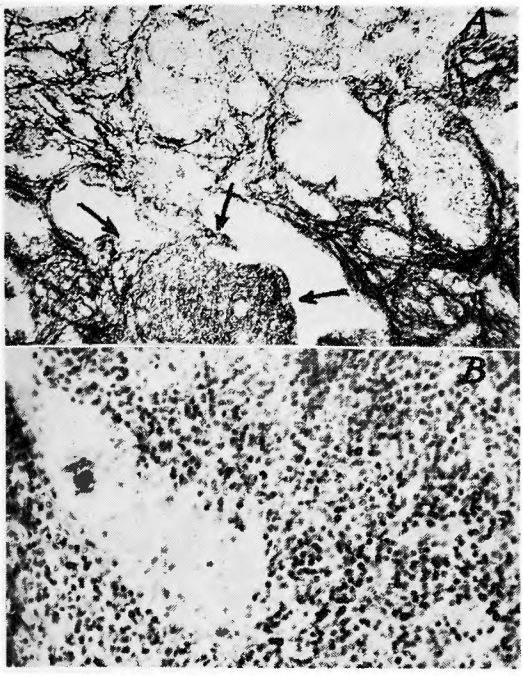

Fig. 5, A), B)

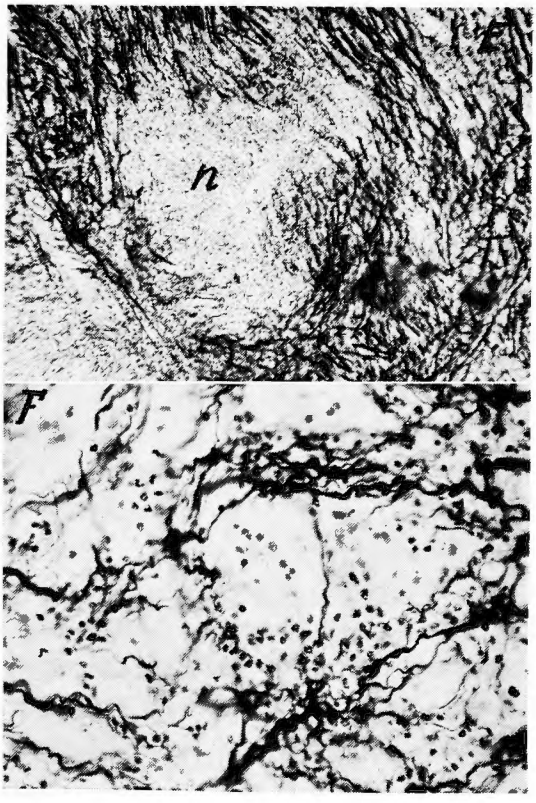

Fig. 5, E), F)

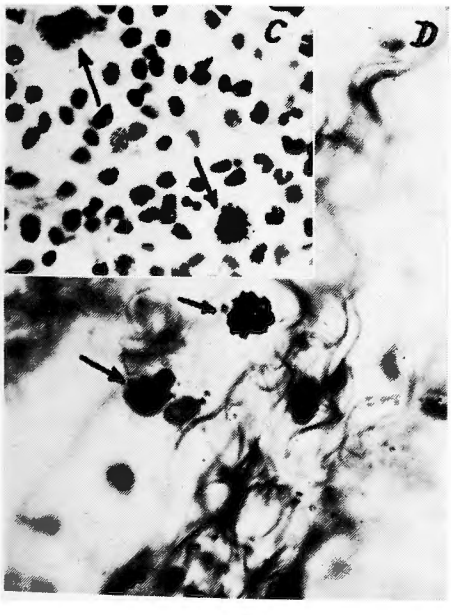

Fig. 5, C), D)

cells. There is, moreover, an evident reticulum cell hyperplasia with frequent mitoses".

Laboratory data revealed a hypochromic anemia, leukocytosis with neutrophilia, Katz index 53, and normal blood cholesterol. The film (Fg. 3) showed a well expanded remaining lung and right hilar enlarged nodes with fan-streaks. X-ray therapy (Dr. M. Roiz) was started Sep. 26, 1955, on the right hilar and mediastinal nodes, for a total of 3,141 γ; next on right supraclavicular nodes, 4,738 γ in total (included the second time). In Nov. 24, 1955, there appeared right axillary adenopathy which was irradiated, with 1,081 γ (anemia). During this period very marked regres-

sion of the irradiated nodes was noted and cough disappeared. On the third admission, Feb. 1956, the right parotid and submaxillary glands were enlarged and regarded clinically as affected by the disease; they were irradiated with a total of 4,439 γ. This time, the right remaining lung was clear and she had no thoracic symptoms. Several proteinograms (Dr. L. G. SAAVEDRA) showed albumin/gobulin ratio below one with increased beta-globulin component, later with increased gamma-globulin component. On the fourth admission, July 1956, the right supraclavicular nodes were enlarged again and newly irradiated. In Dec. 1956, she came to the out-patient department, because she had cutaneous mycosis in this region resistant to treatment (the histology was non-specific inflammatory process); a bone marrow study was made (Dr. F. G. MARCOS) and hyperplasia of the leukocytes with right shift and eosinophilia was shown. We saw this patient last in Feb. 1957 complaining of anorexia and weight loss with a normal X-ray picture of the chest, no pulmonary symptoms, no adenopathy, normal sized right parotid and submaxillary glands, and no splenomegaly. Afterwards we had her letters from the village, because she did not return to the hospital; at the beginning of 1958 appeared oliguria, ascites, edema in legs, and digestive symptoms, which were believed to be caused by compression of the great veins by enlarged retroperitoneal lymph nodes. For several months, she was in this state and died in cachexia in June 23, 1958. There was no autopsy.

COMMENT

This is a grave case of HODGKIN's disease. At the beginning she had general and pulmonary symptoms, without peripheral lymph node involvement; the granuloma underwent necrosis with two cavities, one was infected communicating with the bronchus; as we had no available material for biopsy, radiotherapy following correct histologic diagnosis was not given preoperatively. The lobectomy plus removal of the right hilar and mediastinal nodes was effective in this patient, as she had no thoracic symptoms later. We think that the surgical indication was right.

In the follow-up enlarged lymph nodes appeared in the right axillary region (postoperatively in the right supraclavicular region), enlarged right parotid and submaxillary glands. All of them were irradiated with good results. For one year this right upper location was the only pathologic manifestation of the disease. In the last six months of her life she complained of ascites, edematous legs and distended abdomen. It was the terminal stage, dying nearly three years after the operation and forty five months after the first pulmonary symptoms.

In cases of lung tumor, when there is no available material for biopsy, when

there is dry cough or blood-tinged sputum, irregular fever, sweating, pruritus, anorexia, weight loss, anemia, increased sedimentation rate, abnormal proteinograms and bone marrow studies, etc., we must suspect HODGKIN's disease, mainly, if there are fever and purulent expectoration not modified by antibiotics, as happened in this patient. So, we can start early treatment, which is very important in any malignant disease.

There are two therapeutic tendencies: one, conservative or X-ray therapy, and the other surgical or pulmonary resection, pneumonectomy or lobectomy, alone or plus radiotherapy, and nitrogen mustard, if it is indicated. There is very little experience with the latter, so we do not know yet what is the best, not only for survival but also for the well-being of the patients during the short or long life. Therefore, the publication of all cases treated surgically is recommended, with or without adjunctive radiotherapy, then truly we shall be able to compare the results of the two treatments and advise the most correct therapy.

Acknowledgments. We wish to express our appreciation to Dr. J. G. MORÁN for the facilities given to study, treat, and publish this case of his service; to Dr. A. ROTTINO, of New York, for his valuable pathologic opinion; and to all colleagues that collaborated in some way.

SUMMARY

The authors present a case of lung granuloma of HODGKIN treated by lobectomy of the right upper lobe and afterwards with radiotherapy of several involved lymphatic nodes. The survival was thirty five months. They comment on the diagnostic and therapeutic aspects of the pulmonary localization of this malignant disease.

RESUMEN

Los autores presentan un caso de granuloma pulmonar de HODGKIN tratado por lobectomia del lóbulo superior derecho y después con radioterapia sobre varias regiones linfáticas afectadas; la supervivencia fué de treinta y cinco meses. Comentan los aspectos diagnósticos y terapéuticos de la localización pulmonar de esta enfermedad maligna.

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4) Rottino, A. Personal letter.

Figure 1. Admission X-ray showing a large opacity in the right lung: the enlarged right

hilar and mediastinal nodes are not visible.

Figure 2. Lateral roentgenogram in which the tumor appears to involve the right upper and middle lobes.

Figure 3. X-ray after lobectomy of the right upper lobe and before radiotherapy: the remaining lung is quite expanded and there are enlarged right hilar nodes with fan-streaks.

Figure 4. A sagittal cut of the resected lobe. The tumor occupies two-thirds of the specimen: the abscess cavity (arrow A) communicating with the bronchus; and an isolated, not infected cavity is filled with a white substance (arrow B).

Figure 5. Photomicrographs of lung tumor sections. A) Granuloma (arrows) B) Granuloma, higher magnification. C) STERNBERG-Reed cells (arrows). D) Mitoses. E) Fibrous reaction around the granuloma. F) Reticulin of neighbour zones. Technic : Silver carbonate of RIO HORTEGA.

和 文 抄 録

ホヂキン氏病に対する肺葉切除の1例

アルモンド・ペゴ・ブスト，ヴィセンテ・ハボネロ・サンチェス

著者等は Hodgkin 氏病の肺に生じた肉芽腫に対して右肺上葉切除を行い，その後腫脹せるリンパ腺の放射線療法を併用した1例を報告した．患者は術後35ヵ月生存．著者等は此の悪性疾患の肺病巣に就て診断並びに治療上の見解を述べた．