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Finley. FG

From "The Practitioner" for August, 1897.

A CASE OF PRIMARY SARCOMA OF THE PLEURA

By F. G. FINLEY, M.D.,
Physician to the Montreal General Hospital;

AND
W. I. BRADLEY, M.D.,

Assistant Pathologist to the Montreal General Hospital.

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 ANIW. I. BRADLEY, M.D., Assistant Intholoyist th the Mmentral fiencral IFaspital.
J. M., aged sixty-seven, male, was admitted to the Montreal General Hospital on the 1st of May, 1897, complaining of pain in the left side of the chest, restlessness, and shortness of breath.

His previous health had always been good and his habits temperate.

The ámily history was one of longevity. The father died of cancer of the jaw, aged seventy-eight.

For three or four weeks before admission the patient began to suffer slightly from pain in the side, which was never severe; he became weak, felt unsteady in walking, suffered from severe cough without expectoration, and within the past two or three days noticed his breathing to be very short on slight exertion.

On ex-mination he was a well-nourished elderly man, the muscles were rather Habby, the subcutaneous fat was well marked, and Heberden's nodules were present on the terminal tinger joints.

The respirations were twenty-eight and slightly laboured; there was restlessness and inability to sleep.

The left side of the thorax was a little full, and expansion
almost nil; there was a flat note from apex to base, front and back, extending over to the right sternal border, and almost to the costal border in the anterior axillary line; the breath sounds were much enfeebled and completely absent behind; the voeal resonance and fremitus were also greatly diminished.

The cardiac impulse was not felt, but dulness extended two fingers' breadth to the right of the sternum : the cardiac sounds were also best heard in this locality. The temperature $97 \cdot 8^{\circ} \mathrm{F}$. The pulse was 104 and of fair volume.

Owing to the dyspnoea, restlessness, and evidence of large quantity of Huid, it was decided to aspirate; the needle was introduced in the sixth space in the axilla and ninety-two ounces of blood-stained serum were withdrawn. On the following day the note over the front of the chest was high pitched but not flat, but posteriorly the flat note extended up to the fifth spine.

The subsequent history was one of rapid collection of fluid and repeated aspirations to relieve dyspnoa. Between the 6th and 27th of May he was aspirated six times, the total quantity of fluid drawn off during this period being 354 ounces.

The temperature was afebrile throughout, the two-hour chart ranging from 96.4 to $984^{c}$; it reached $99^{\circ}$ only on three occasions, and 100 and $1001_{2}^{\circ}$ only on two occasions for a few hours.

The pulse during the greater part of his illness was remarkably small and feeble, and at times irregular, averaging about 100 . On two occasions he had alarming syncopal attacks. The general nutrition remained fairly good, the subeutaneous fat abundant, but the museles became extremely flabby and soft. Glandular enlargements were never present. Death from cardiac failure took place on June 1st.

On opening the chest the heart was found displaced to the right of the sternum, and the left pleura was greatly enlarged. On opening it 105 ounces of sero-sanguineous fluid escaped. The thoracic viscera were then removed en masse, the left, pleura being readily stripped from the chest wall, and the impressions of the ribs being seen on its outer surface. Both layers of the pleura were universally thickened, the inner
surface being studled with nothles of a white or reddish colour, which on section were seen to be uniformly white and juicy. In size they varied from 5 to 30 mm . in thickness by 8 to 60 mm . in diameter, the pleura between the nodules averaging 5 mm . in thickness. The left lung was in a state of complete eollapse, being compressed against the bodies of the vertebre. One bronchial gland was slightly enlarged, seemingly from direct extension from the pleural growth. 'The remaining organs were normal, there being no evidence of' new growth in any other part of the body.

Microscopie examination showed the growth in the plema and bronchial gland to be a myeloid sarcoma, as characterised by the presence of large irregular-shaped multinuclear cells, with smaller round and oval cells between stroma nonevident, blood chamnels visible between rows of cells. The chief clinical features were thus a large and rapidly recurring hood-stained serous exudation in the pleura, an afebrile temperature, marked prostration of strength, and cardiac weakness.

The diagnosis made during life, after watehing the progress of the case, was malignant disease of the pleura. This was based on the extremely rapid recurrence of the fluid and an afebrile temperature. The marked prostration and bloodstained fluid were also in harmony with this view.

On the occasion of the first tapping the colour of the Huid awakened a suspicion of tuberculosis. The absence of fever, however, was regarded as being extremely improbable in a severe tuberculous pieurisy.

The autopsy proved conclusively the presence of a myeloid sarcoma of the pleura. The absence of any evidence of implication of the bones or the viscera compels us to regard the pleural growth as primary.

Cases of primary malignant disease of the pleura are universally admitted to be extremely rare, and their existence is even denied by some authorities. The majority of cases are reported in inaccessible foreign journals, and are not even abstracted in the various Year-books.

In the following table we have summarised the main features of six cases of primary pleural sarcoma:-

\begin{tabular}{|c|c|c|c|c|c|}
\hline \[
\begin{gathered}
\text { Case ful reftrio } \\
\text { wirw, }
\end{gathered}
\] \& Aде. \& Ses. \& Xуmptomes. \& Plysmied uigus. \& Prost- marternappromathess. \\
\hline 1.-Ntewart \& Alluni, Mont. real Mrrt. Jnl., 18!4. \& 31 \& M. \& l'ain, frequent vomiting, wenk pulse and raised surfice teraperature of left nim. \& Buiging, duluess. distant blowing hreathing, ahsent vocal fremitus at left npex, front und hack. J'uncture gave blood, showing eells lurger thmu lencooyter, afew spindle nud linge sized cells. \& Angio - sitrconat ous mass in uprer part of right pleura, involving intercostal ha. meral nerve. \\
\hline \begin{tabular}{l}
2.- Deruschinsky, "I'rimäres Narkom il. J'leura.' Dent. med. Worh., 188s. \\
3.- Blumenau,
\end{tabular} \& 47

23 \& M. \& Dyspmora, at first on exertion, and Inter at rest. Scvere cough, purnlent expicetoration. Later,severe pain. weak radial pulse on left side. Repeated nspirations for removal of Huid. Emaciation, marasmus. Death withsymp,toms of cardineparalysis; duration nhoutsix months. Sense of pressure \& | Signs of thuil on left side. Slightly enlarged glunds helow claviele nnd in axilla on name side. |
| :--- |
| Bulging of thorax | \& Pleura universally thickened with nodulu. growtlis. Metas. tares in lungs and hronchial glands enlargeal. <br>

\hline | 3.- Blumenau, |
| :--- |
| " Primäres Sarkom d. J'leura." Dent. med. Worh., 1896. | \& 23

24 \& M. \& Sense of pressure on left side, increasing to pain, radiating down leftleg.Cachexia, cough and expectoration slight. Later, paraplegia, paralysis of bladder nud rectum, decubitus, slight elevation of temperature. \& Hulging of thorax it left hase behind, with absence of respiratory movement. Feeble breath sounds over this area. P'uncture negative. \& Large tumour of pleura weighing it Kg. Erosion of vertebreand pressure on spinal cort. <br>
\hline 4.-Bernard, Sujous's $A n$ nutal, 18!\%. \& 21 \& M. \& Cough, dyspnœea, pain left side, night sweats. Death from cardiae and respiratory failure. \& Dulness from base to middle of infra-spinous fossa. Heart displaced and, later, veius enlarged on chest wall. \& Growth size of a sheep's head of left pleurn, which is partially adherent und contains yellow fluid metastases in right pleura and lungs. Enlarged medias. tinal glands. <br>

\hline | i.- Boyce, |
| :--- |
| Sujous, 1895. | \& 14 \& F. \& Pain in left side. Intenseprainlittle and ring finger. (Edema of arm. \& Blood - stained fluid, two quarts removed. Glands size of walnuts in supra - clavicular and axillary regions. \& No antopisy. <br>

\hline (j. - Le ube, Hirsch J. b., J $88:$ : \& 2 \&  \& No details. \& Bulging of affected side. Absolute dulness diminished V.F., slight hlowing breathing. Displacement of the heart. Puncture negative. \& No :utoprsy. <br>
\hline
\end{tabular}

From an examimation of these cases it would appear that primary sarcomatous growths of the plema may appear as a single large growth, or as a diftiused nodular thickening of the plema with eftusion of fluid, usmally tinged with blood.

Examples of the former class are cases $1,3,4,6 ;$ whilst the second is exemplitied by cases 2,5 , and our own.

The physical signs rliffer matorially in the two elasses. In the ease of single large tumours there is often bulging of the chest wall, dulness, absence of respiratory movements, feeble, sometimes blowing respibation, and occasionally cardiace displacement.

In the diffiuse cases the signs are essentially those of milateral pleural eftusion. In our own case and in Deruschinsky's the recurrence of Huid after aspiration was extremely rapid, relief being often obtained for two or three days only. Of the other symptoms, pain is usually prominent, dyspncen is present on exertion, and sometimes at rest; there is commonly a dry eough, and in two of the cases there was enlargement of the glands in the axilla and clavicular region, to the size of a bean or walnut. The temperature is afebrile, and there is a marked tendency to cardiac weakness. In two cases $(1,5)$ pressure symptoms in the arm, on the nerves and vossels, were prominent, and afforded material aid in the diagnosis. It is somewhat remarkable that in all the cases quoted, with the exception of Leube's, in which no statement is made on the point, the desease was on the left side.


