

# HODGKIN'S DISEASE

## *Review of 47 Cases*

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Hodgkin's disease is a "specific general disease of a malignant character in which any organ or tissue of the body may be affected." (Osler) While the disease begins characteristically with enlargement of the cervical lymph nodes, other nodes may be affected first, or the primary lesion may be an infiltrating one elsewhere. Various specific organisms have been recovered from involved tissue. The consensus of opinion is that these are secondary invaders. The disease is most likely neoplastic in origin. Tuberculosis is often associated with Hodgkin's disease, but has no causal relationship with it. The disease, unlike lymphosarcoma and leukemia, with which it is often confused and even grouped by some pathologists, has never been identified in lower animals.

The clinical picture of Hodgkin's disease is extremely variable. The most characteristic course is primarily a slow and progressive, painless enlargement of the cervical lymph nodes often beginning on one side of the neck only. The nodes are discrete and firm. Later other nodes are usually involved, and still later fever, anemia, and cachexia set in causing the death of the patient. All variations of this picture may be observed. Fever and anemia may be the first and only presenting symptoms, especially when the lesion is primarily infiltrative. It is common to find only the peribronchial glands involved, often with infiltration of the lungs. Since any part of the body may be affected, the possibility of Hodgkin's disease must be considered in many confused clinical states, especially with cryptic fever and anemia.

From 1930 to 1940 the diagnosis of Hodgkin's disease was made in the Cleveland Clinic in 90 patients. A group of 47 patients in whom the diagnosis was established by biopsy or autopsy has been selected for this clinical study. In every patient the clinical result and final outcome are known. In many cases patients were seen after a biopsy elsewhere or after irradiation with resultant disappearance of the glands which made a biopsy impossible. In other cases the diagnosis was based upon x-rays of the chest or on clinical grounds without substantiation by pathological study of a lymph gland or other tissue. Since such diagnoses are always open to question, these have been excluded. We have also not included any case without an adequate follow-up.

Ten patients complained only of such general symptoms as weakness, fever, pain in different parts of the body, weight loss, dyspnea, and

anorexia. Nine of the ten patients had definite enlargement of the lymph glands, although this was not marked and was not recognized by the patient. Thirty-seven patients complained of swollen glands, usually in the neck and often associated with general symptoms such as those described by the first group.

Twenty-five of the entire group were men and 22 were women. The youngest patient was  $3\frac{1}{2}$  years of age and the oldest 67 years. Nine patients were less than 20 years of age, and five were over 60. Nineteen patients were in the 20-40 age group and fourteen in the 40-60 age group. The average age of the entire group of patients was 35 years.

The pain complained of was at times severe, probably due to the infiltration of tissues by the Hodgkin's disease. In one patient severe interscapular pain was followed in two weeks by a hydrothorax. In another the pain in the shoulder, arm, and chest was so severe that a cordotomy was considered. Infiltration of the spinal cord with extreme pain has been observed.

Thirty-two of the 37 patients who complained of glandular enlargement first noticed the gland involvement in the neck. In five patients the primary swelling was in the inguinal or axillary regions. Enlarged axillary glands were usually present although often not apparent in the patient.

The spleen was palpable in 17 patients although seldom greatly enlarged. The liver was enlarged in six instances. Ascites was present in five patients.

The blood count often showed an anemia, usually of the hypochromic or iron deficiency type. In eight patients the hemoglobin was above 80 per cent. In the remaining 39 patients the average hemoglobin was 65 per cent (10.0 gm.). The lowest reading observed when the patient was first seen was 39 per cent (6.0 gm.). The white cell count was below 10,000 in 22 patients, above 20,000 in three patients, and between 10,000 and 20,000 in 22 patients. The differential count was normal in the group of patients with a total count less than 10,000. As the white count increased, there was an increase in the polymorphonuclear neutrophile percentage with a decrease in the lymphocytes and monocytes. It is apparent that there is nothing characteristic in the blood count.

Chest x-rays were taken in most instances. Enlarged hilar glands, hilar and lung infiltration, and masses in the lungs were often found, usually without symptoms referable to the chest.

Five patients are known to be living two, five, six, seven, and eight years after first being seen. Forty-two are known to be dead. The average length of life was two and one-half years. One patient lived nearly ten years, and six others lived five years and over. It is apparent that a prognosis as to length of life in Hodgkin's disease is very hazardous. Most of the patients were treated by irradiation. The response to such treatment is usually very gratifying at the outset. The time always comes, however, when irradiation does not relieve the patient. Death is often due to fever, anemia, and cachexia without the reappearance of lymph gland enlargement.

Three of the five patients who are living five, seven, and eight years after the diagnosis were treated by irradiation and show no signs of the disease. In one patient the disease has been recurrent and is again being treated. One patient has become insane.

#### SUMMARY AND CONCLUSIONS

Forty-seven patients with Hodgkin's disease in whom the diagnosis was made by the examination of biopsied lymph glands or other tissue and in whom the ultimate result is known are reported.

Forty-two patients are dead. The average length of life was two and one-half years.

Five patients are living two, five, six, seven, and eight years after first being seen. One has had a recurrence.

All patients had glandular enlargement although unrecognized by ten.

The cervical glands are most commonly involved and often without lymphadenopathy elsewhere at the onset.

Other common symptoms are pain, anemia, and fever. The spleen was palpable in 36 per cent of the cases. The leukocyte count often shows a polymorphonuclear leukocytosis, but this is not constant or diagnostic. The diagnosis can be made with certainty only by histological examination of biopsied tissue.