Case Report Section

A Case of Benign Inoculation Lymphoreticulosis Presenting as Axillary Lymphadenopathy of “Obscure” Origin

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While the classic or current causes of enlarged axillary lymph nodes are well known and immediately sought, the more unusual ones are occasionally overlooked.

Among the recently described nosographic entities there is one that appears to be fairly common, and most likely more frequent than the hundreds of cases so far described in literature, both in this country and abroad, would seem to indicate; for its clinical manifestations are ostensibly protean, its course usually mild, and hence not too conducive to an intensive diagnostic investigation and, finally, its main etiologic factor, a virus of the lymphogranuloma-ornithosis type, easily and universally transmissible by its main, “ecumenic” host, the cat. This is “cat-scratch disease,” also known as benign inoculation lymphoreticulosis. While it is most frequently caused by cat-scratch, or bite, the rabbit, the porcupine and most likely other mammals, occasionally transmit it. Minor trauma caused by thorns, wood splinters etc. (perhaps soiled by infected animals' urine) also play a role in its transmission, in some reports accounting for about 8 per cent of cases.

Usually, a few days after a cat-scratch, the injured organ, most commonly a hand or a leg of a youngster, presents a papule surmounted by a vesicle or pustule which frequently ulcerates. One to three weeks later, the regional lymph nodes become swollen, and sometimes suppurate. All of the lesions may remain indolent, and the systemic reaction is practically nil. However, fever, severe malaise, generalized maculo-papular rash and even mild encephalitis develop occasionally. Also, several instances of oculo-glandular syndromes (Parinaud's type) have been observed. Nonetheless, the ultimate prognosis apparently is good. The blood picture usually is unaffected, but the sedimentation rate frequently is accelerated.

In the absence of history of a scratch or bite, the clinical picture may become extremely confusing. Sometimes no history of trauma can be elicited.

Case Report: A 12 year old Puerto Rican boy was examined with the exclusive complaint of a “lump” in his left axilla, painful only on lifting the arm, of about two weeks duration.

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*For other complications of cat bites, see ref. 4.
The personal and the family history were noncontributory. Search for contact with animals and a skin lesion was unrevealing. There was no history of fever, chills or malaise antedating the appearance of the axillary lesion.

Physical examination revealed a protuberance in the left axilla the size of a walnut. The remainder of the physical examination was negative. He was afebrile and felt well. Routine laboratory examinations including urine analysis, complete blood count, and roentgenogram of the chest, were normal. Blood serology and two cultures were negative.

During the next few days the lymphadenopathy seemed to increase. Tuberculosis or lymphomas were considered as main diagnostic possibilities.

Dr. E. Schnebel, Parkchester General Hospital, removed the mass which consisted of enlarged, soft lymph nodes. On further exploration of the armpit three more enlarged lymph nodes were found and removed.

On section, the nodes showed pinkish tan soft parenchyma. Histologically there were many areas of reticulum cell proliferation and focal necrosis suggesting benign infectious granuloma, "possibly cat scratch disease."

**Figure 1:** Hyperplasia of reticulum cells. H and EX x 125.—**Figure 2:** Area of early necrosis, showing nuclear débris and inflammatory cells. H and EX x 250.
Figure 1 shows marked hyperplasia of the reticulum cells forming small and large ill-defined foci. On the other hand, the central areas of some of these collections showed (Fig. 2) an early necrosis with mild infiltration by polymorphonuclear leukocytes and plasma cells. Nuclear débris was also noted.

Patentity of the peripheral sinuses of the lymph nodes and moderate increase of their germinal centers were observed. The capsule showed perivascular lymphocytic infiltration.

These unexpected microscopic findings led to further investigations. On closer questioning, it was learned that the boy frequently played with a neighbor's cat which occasionally slept with him but no scratch or bite was admitted. An intradermal test was done with an antigen from a necrotic lymph node of a proved case of cat-scratch disease. The 48, 72 and 96 hour readings were intensely positive. The test was repeated with a similar antigen from another proved case with similar result. Simultaneously, a non-specific antigen was employed (obtained from a lymph node from another patient suspected of, but not having the disease), and the result was negative.*

Several authors, especially Daniels and MacMurray, Kalter and associates,2 and more recently Armstrong and his associates3 have emphasized the protean nature of this disease's clinical picture and the great diagnostic value of the skin test. The present case indubitably confirms these statements.

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REFERENCES