Enlarged epitrochlear lymph nodes: an old physical sign revisited

ABSTRACT—Few doctors routinely examine the epitrochlear glands as part of their physical examination of a patient. No palpable epitrochlear nodes were detected in 140 healthy subjects, but palpable epitrochlear nodes were present in 27% of 184 patients with diseases in which lymphadenopathy occurs. Whilst epitrochlear nodes are commonly enlarged in specific acute, subacute, and chronic infections, they are not enlarged in the mild, transient, non-specific febrile illnesses with cervical lymphadenopathy of children and young adults. Enlarged epitrochlear glands provide a useful discriminatory sign in the diagnosis of glandular fever. Enlargement of these nodes is common in most of the lymphoproliferative disorders except Hodgkin’s disease. In rheumatoid arthritis their palpability indicates activity of hand joints. The examination of epitrochlear nodes should form part of the routine physical assessment of any ill patient.

The epitrochlear, or supratrochlear, nodes are the main peripheral glands in the upper limbs. In healthy individuals they are no more than a few millimetres in diameter, but when enlarged they may be palpable 2–3 cm proximal to the medial epicondyle anterior to the supracondylar ridge (Fig. 1). The epitrochlear glands are rarely palpable in health and their examination is a much neglected skill. Detecting enlargement of these glands is a good deal more useful diagnostically than the ‘sailor’s handshake’, said to be used for discovering the swollen glands of secondary syphilis, and a search for epitrochlear glands should always be made in any patient with suspected lymphadenopathy.

To our knowledge, this is the first clinical study of the prevalence of enlarged epitrochlear nodes, and we present here our findings in 324 subjects.

Methods

We examined the epitrochlear nodes in 140 normal subjects and 184 consecutive outpatients with conditions known to be associated with lymphadenopathy. Patients with leukaemia, other than chronic lymphatic leukaemia (CLL), were excluded, as were patients with primary haematological malignancies such as myelomatosis. We included 22 younger patients sent to hospital for evaluation of mild transient cervical lymphadenopathy for which no specific cause was subsequently found. Our patients also included 43 with seropositive rheumatoid arthritis of the hands and five patients with chronic skin conditions of the arms and hands. All 324 subjects were carefully examined for evidence of lymphadenopathy elsewhere and for hepatosplenomegaly. The patients with Hodgkin’s and non-Hodgkin’s lymphoma (NHL) were all with stage III or IV disease. For the purposes of this survey no distinction was made between high, intermediate and low grade NHL.

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Fig. 1. The position of the epitrochlear node(s) in man
Results

The prevalence of palpable epitrochlear nodes in 140 control subjects and 184 patients is shown in Tables 1 and 2.

No palpable nodes were detected in the healthy controls.

Twenty-seven per cent of patients with diseases associated with lymphadenopathy had palpable epitrochlear glands.

One-third of the 45 patients with NHL had unilateral or bilateral epitrochlear node enlargement but only three of the patients with Hodgkin’s disease had palpable epitrochlear nodes.

Most of our patients with an infective cause for their lymphadenopathy had glandular fever, and nearly half of them (45%) had enlarged epitrochlear nodes when seen, which was usually at the height of their illness. None of the patients with non-specific cervical lymphadenopathy, for which subsequently no cause could be identified, was found to have enlarged epitrochlear nodes.

A surprisingly large proportion (29%) of patients with seropositive rheumatoid arthritis associated with active synovitis of the wrist and hand had enlarged nodes.

Discussion

Historically, epitrochlear lymphadenopathy has always been associated with the generalised lymphadenopathy of secondary syphilis, though the original description of this physical sign has been lost. But it also occurs in other infective diseases, including lepromatous leprosy where it has been detected in more than 80% of cases [1], leishmaniasis, cytomegalovirus infection, rubella, and glandular fever. More recently, it has been recorded in 35% of patients with persistent generalised lymphadenopathy of human immunodeficiency virus (HIV) infection [2]. We saw only a limited range of patients with infections, but 55% of those with infective mononucleosis had palpable epitrochlear nodes. The absence of epitrochlear lymphadenopathy in children and young adults with non-specific cervical lymphadenopathy provides a useful discriminatory point in dealing with young people suspected of having infective mononucleosis. Of course, local infective lesions of the hand may well cause acute epibrochlear lymphadenitis [3], including such rarities as bubonic plague [4], cat scratch disease [5], and Lobo’s disease contracted from a bottle-nosed dolphin [6].

Superficial, often bilateral, generalised lymph node enlargement is a frequent manifestation of sarcoidosis [7]. European series of patients with sarcoidosis suggest a prevalence of lymphadenopathy of about 30%, but this is nearer 80% in American series [8, 9]. This is probably due to the more florid type of sarcoidosis seen in Afro-Americans. The most commonly palpable nodes are in the cervical chain, those in the anterior triangle being enlarged more often than those in the posterior triangle; next in frequency are the axillary, followed by the epitrochlear and then the inguinal glands. Sarcoidosis has long been recognised as a cause of epitrochlear lymphadenopathy. Indeed, one group went so far as to say that sarcoidosis, along with syphilis and trauma, was one of the few clinical entities responsible for epitrochlear lymphadenopathy [9].

Epitrochlear nodes are often involved in lymphoproliferative diseases. The literature suggests that these nodes are rarely involved in Hodgkin’s disease and then only when the disease is advanced. However, there are occasional reports of Hodgkin’s disease presenting with isolated unilateral epitrochlear lymphadenopathy [10,11]. In contrast, in NHL and CLL epitrochlear lymphadenopathy is much more common, with 14 cases in nearly 100 patients with

Table 1. Sample characteristics

| Group                  | N  | Sex ratio | Age range (yr) | Mean age (yr) |
|------------------------|----|-----------|----------------|---------------|
| Controls               | 140| 75        | 65             | 14-83         | 62            |
| Disease group          | 184| 99        | 85             | 5-89          | 55            |
| Lymphoma (all)         | 60 | 39        | 21             | 16-89         | 60            |
| Hodgkin’s disease      | 15 | 12        | 3              | 16-87         | 41            |
| NHL                    | 45 | 27        | 18             | 17-89         | 44            |
| CLL                    | 15 | 10        | 5              | 50-81         | 70            |
| Sarcoidosis            | 12 | 2         | 10             | 18-78         | 47            |
| Rheumatoid arthritis   | 43 | 16        | 27             | 36-81         | 70            |
| Infections             | 27 | 17        | 10             | 5-72          | 26            |
| Non-specific cervical glands | 22 | 11 | 11             | 12-52         | 28            |
| Dermatopathic          | 5  | 4         | 1              | 17-76         | 37            |

Table 2. Incidence of epitrochlear nodes

| Group                  | Palpable | Impalpable |
|------------------------|----------|------------|
| Controls               | 0 (0%)   | 140 (100%) |
| Disease group          | 49 (27%) | 135 (73%)  |
| Lymphoma (all)         | 18 (30%) | 42 (70%)   |
| Hodgkin’s disease      | 3 (20%)  | 12 (80%)   |
| NHL                    | 15 (33%) | 30 (67%)   |
| CLL                    | 4 (27%)  | 11 (73%)   |
| Sarcoidosis            | 3 (25%)  | 9 (75%)    |
| Rheumatoid arthritis   | 9 (21%)  | 34 (79%)   |
| Seropositive           | 9 (29%)  | 22 (71%)   |
| Seronegative           | 0 (0%)   | 12 (100%)  |
| Inf. mononucleosis     | 12 (55%) | 10 (45%)   |
| Toxoplasma             | 0 (0%)   | 3 (100%)   |
| HIV (PGL)              | 1 (50%)  | 1 (50%)    |
| Non-specific cervical glands | 0 (0%) | 22 (100%) |
| Dermatopathic          | 2 (40%)  | 3 (60%)    |
Malignant lesions on the ulnar side of the hand or forearm such as melanomas, carcinomas or sarcomas [13-15] may result in reactive or metastatic swelling of epitrochlear glands, but because of the referral pattern of our clinic we did not see such cases.

We were particularly surprised by the high proportion (29%) of patients with active seropositive rheumatoid arthritis who had enlarged nodes. Generalised lymphadenopathy is relatively common in rheumatoid arthritis, especially Felty’s syndrome, but there are scant references to enlarged epitrochlear nodes in the standard texts or journals [16]. Obviously few doctors search for these nodes although their enlargement may give an indication of the activity of the disease.

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