

AXILLARY GLAND INFECTIONS AND THEIR TREATMENT

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The purpose of this brief paper is for the prevention of local and constitutional disease and the conservation and treatment of the axillary glands. Although there has been little written on axillary gland disease, it is most interesting from a health and medical standpoint. Probably no group of lymphatic glands, except the cervical, are called upon as frequently to stop the progress of infection bound vascularwards, as the axillary glands. In fact, they do their work so well and so infrequently become dangerously involved in ratio to the numerous infections of the upper extremity, scapular regions and outer chest wall, and *mamma* that their presence is only realized when they become involved. (The public is much entitled to a fair conception of the hygienic and preventive measures.) This group of glands is slightly protected from infected wounds of the areas of their lymph channels drain. There are some small glands in the arm and fore-arm (these are often missing), and the epitrochlear of the elbow are the only nodes to delay infections entering directly into these glands. The so-called "Kernels under the arm" are of frequent occurrence and at first are taken lightly by the patient, especially if they are not having intense pain at the focus of the infection. As long as the glands are not swollen and painful neither the patient nor the physician feels anxious; but when chill and pain appear, and the red streaks form in the skin between the focus and the axillary glands, radical treatment of the infected area should be maintained and assistance should be given the glands in arresting the progress.

We have both the acute and chronic infections, but in the chronic infections we have more time for study and treatment; therefore only the acute conditions can be considered here.

The etiology is clear but extensive. Predisposed by age we find more cases in the young and in the laboring classes who are most active, certain occupations incurring special

hazards in hand and arm injuries. Males are subject to these causes more than females. But, many cases are found in the females of child bearing period, from infected milk ducts and fissured nipples, females also from depilatory operations on the axilla, causing infections of the hair follicles. Many cases arise from constitutional debility and sedentary habits in persons who have thin loose skin and brittle nails causing hang-nails, which make ideal foci of infection. Gardners, farmers, carpenters and sportsmen should be careful. Formerly surgeons had frequent axillary infections, but since asepsis is more perfect we seldom see a case in surgeons.

Skin diseases cause many cases, such as ring worm, seborrheic, dermatitis, erythema, intertigo, eczema, scabies, furunculosis.

Primary infections may enter the axillary glands by direct contusion, subjecting the glandular tissue to infectious material such as traumatic injuries from punctures, gun shot wounds and fractures about the shoulder joint. From these sources any kind of pyogenic bacteria may enter. Primary infections usually are more destructive to the glands than secondary infections because the glands do not have so much time to form their resistance.

The exciting cause is bacterial, such as the pus forming organisms, tubercle bacillus, bacillus malignant oedema and others.

The tissue changes in glands varies according to the type of infection. Infection with the bacillus malignant oedema may be described as a solid confused indurated mass of vessels, connective and glandular tissue, without much swelling. With the pus forming organisms there are constant changes; gradual swelling and induration of the whole gland and surrounding tissue, with whipcord condition of lymphatic vessels to the gland involved. Cross sections of the glands at first show simple induration, later breaking down into pus and abscess formation. It is when the gland becomes solid from induration that its function of filtering and fighting power over bacteria ceases, and the

danger arises of the enemy bacteria getting through to the next group of glands or into the blood vascular system giving general blood poisoning or constitutional disease.

Symptomatology is fairly constant, depending upon the type and virulency of the infection, with temperature, swelling, pain, tenderness of the glands, often chills and general aching. Incubation period varies from a few days after the original site is exposed to infection, to several weeks. The duration depends upon the resistance of the individual, type of bacteria and its virus, and treatment.

By far the most important treatment is preventive; vaccination is probably premature. Training in hygiene, health habits, sterilization of wounds, and how to keep wounds aseptic, are of great assistance in keeping the axillary glands healthy. The active treatment varies with the type of infection. Here we must confine this paper to the simple and pus infections, leaving the tubercular, syphilitic, malignant oedema, tetanus, etc., to special study. The foci of both secondary and primary infections must be well drained and have frequent dressings. Regional skin diseases should have immediate attention. Free catharsis must always be maintained and symptomatic treatment instituted. Administration of autogenous vaccine made from secondary infection foci is often of value. External heat must be applied to the axilla continuously until the infection is aborted or a diagnosis of abscess formation is made. Then surgical treatment of free drainage and sterilization of the wound by the Carrol-Dakin method is usually found most effective.