

Shoulder pain after alcohol consumption

L. Seghers^{*}, H.C.T. van Zaanen¹

¹Department of Internal Medicine, Sint Franciscus Gasthuis, Rotterdam, the Netherlands,

^{*}corresponding author: tel.: +31(0)10-4616161, fax: +31(0)10-4612692,

e-mail: leonard_segthers@hotmail.com

CASE REPORT

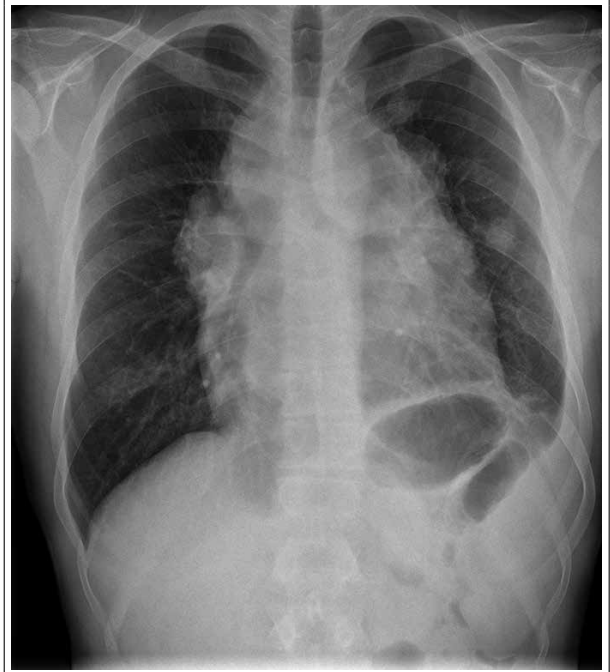
A 30-year-old man presented to our outpatient clinic because of intense pain in the left shoulder region related to consumption of alcoholic beverages, and an abnormal chest X-ray. He had stopped drinking alcoholic beverages in the last six months because of this pain. In addition he had weight loss, approximately 5 kg in the last couple of months, night sweats and a dry tickling cough. There was no relevant medical history.

The most important findings on physical examination were bilateral supraclavicular lymphadenopathy with an average diameter of 1 cm and a large palpable lymph node in his left axilla of 4 cm. Laboratory results showed erythrocyte sedimentation rate 49 mm/hour, haemoglobin 7.2 mmol/l, leukocytes $9.2 \times 10^9/l$, with lymphocytes 6%. Chest X-ray shows a widening of the superior and middle mediastinum with a solitary node in left upper lung lobe (*figure 1*).

WHAT IS YOUR DIAGNOSIS ?

See page 154 for the answer to this photo quiz.

Figure 1. Chest X-ray (posterior-anterior) shows a widening of the superior and middle mediastinum with a solitary node in upper left lung lobe



DIAGNOSIS

The differential diagnosis of a mediastinal mass, specifically in the superior and middle mediastinum, is a thymoma, malignant lymphoma/Hodgkin's disease, germ cell tumour, goitre, pericardial cyst or bronchogenic cyst. Furthermore a widened mediastinum can also be observed with sarcoidosis, mostly concentrated around the lung hilus.

The CT demonstrated extensive axillary, mediastinal and intraperitoneal lymphadenopathy, also splenomegaly was observed. Pathological examination of the left axillary lymph node revealed a classical Hodgkin's lymphoma with the characteristic histopathological finding of Reed-Sternberg cells (CD30 positive). Although bone marrow investigation showed no abnormalities, he was staged as 4B (Ann Arbor) because of the intrapulmonary abnormalities. Treatment with chemotherapy, doxorubicin, bleomycin, vinblastine and dacarbazine (ABVD) cycles was started.

His initial presentation with alcohol-induced shoulder pain is interesting since this was reported in the 1950-60s to be an anamnestic clue for specific types of malignancies. In 1950 Hoster was the first to describe that some patients with Hodgkin's disease experience pain at the site of disease if they drink alcohol.¹ The pain is of sudden onset, usually occurs 5-15 minutes after ingestion of even small amounts of alcohol and is sometimes of sufficient severity to induce patients to stop drinking alcoholic beverages. Treatment of Hodgkin's disease often abolished this phenomenon.

In an extensive survey Brewin reported that alcohol pain could occur in Hodgkin's disease but also in other malignant diseases, and occasionally in non-malignant conditions.² In this survey of 1060 patients with neoplasms, 155 patients showed alcohol intolerance. Of 1060 patients, 360 (34%) had Hodgkin's disease and 60 of these patients (17%) had alcohol pain. The remaining 95 patients with alcohol intolerance were diagnosed with

cervical cancer (16 patients), reticulum-cell carcinoma (11 patients), lymphosarcoma (11 patients), lung cancer (9 patients), bladder cancer (6 patients), squamous carcinoma of the mouth (6 patients), breast cancer (4 patients), uterine cancer (3 patients), anaplastic lymphoid sarcoma (1 patient) and lymphoma (1 patient). In 1967 Brewin described that alcohol intolerance was also a phenomenon in women with cervical, uterine or ovary cancer, where alcohol intolerance manifested predominantly in patients with cervical cancer.³ James *et al.* and Atkinson *et al.* reported alcohol pain incidences of 7 and 17%, respectively, in Hodgkin's disease patients.^{4,5} The latter group also reported that alcohol pain in Hodgkin's disease was even associated with at least one unfavourable prognostic indicator in a small number of subjects (n=27), but did not affect overall survival in this small group.⁴

The exact mechanism of alcohol-induced pain is not clear, the most plausible theoretical explanation to date is that alcohol induces a sudden intense vasocongestion in the neoplastic tissue resulting in capsular stretch inducing the pain.

Although still not completely understood, alcohol pain could be an important anamnestic clue for malignancies, in particular Hodgkin's disease, in patients with unappreciated complaints.

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