

Case Report

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## Virchow Node and Gastric Cancer Clinical Diagnosis is Still Important

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### Abstract

A 44 years old woman was referred to the Internal Medicine Department because of left sided cervical lymph node enlargement. She suffered in the last few months from dyspepsia that was responsive to protein pump inhibitors. She knew that her physician suspected that she might have a recurrence of the helicobacter pylori that she suffered from 2 years earlier, but she was afraid to undergo gastroscopy and did not want to perform the breath test for helicobacter pylori detection. She had a left sided parathyroid adenoma that was removed 2 years earlier. It is important to mention that her sister had Hodgkins' lymphoma and her father suffered from vocal cord cancer. A week before admission she noticed a swelling in the left lower cervix, and she decided eventually to examine it because of esthetic reasons.

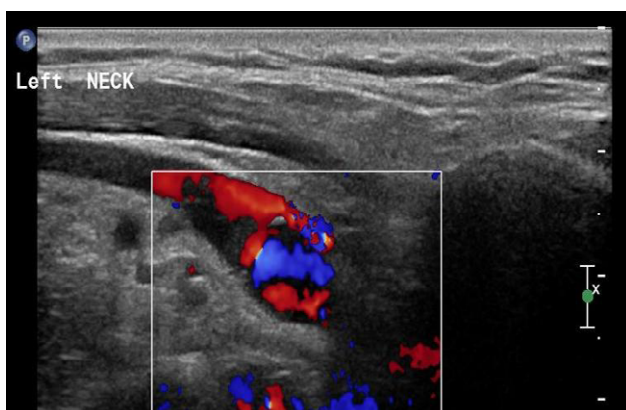
**Keywords:** Virchow node; Gastric cancer

### Case Report

She was referred to the ear nose and throat physician that operated her 2 years earlier—because she had a tumor in the cervix—an area that belongs to the ear nose and throat physician. He sent her to perform a Computed Tomography (CT) and an ultrasound (US) of the enlarged cervical swelling. The CT did not make any diagnosis except for an enlarged lymph node (1 cm×2 cm), and the Doppler ultra sound (US) found swelling with an occluded thrombosed superficial jugular vein (Figure 1). She was referred to our department for investigation because the physicians who treated her could not figure out the diagnosis.

On physical examination the daignosis of an an enlarged supraclavicular left sided lymph node (Virchow node) was done (Figure 2). Heart sounds were normal without murmurs, normal breathing sounds with clear alvealr breathing in all lung fields, soft, non-tender abdomen without hepatosplenomegaly, and no peripheral edema or signs of superficial or deep vein thrombosis. Sedimentation rate was 30 mm/1 hour, normal blood count and biochemistry with mild elevated C reactive protein (30 mg/ml), with normal thyroid function tests and a mildly elevated parathyroid hormone level (97.5 pg/ml).

Abdominal CT demonstrated an infiltration around the pancreas, a picture that could remind an “omenrtal cake”, but the pancreas was intact. Mesenteric lymph nodes were involved around the pancreas, but there was no ascites or lymph node enlargement, and no infiltration of the gastric mucosa was observed in the abdominal CT.

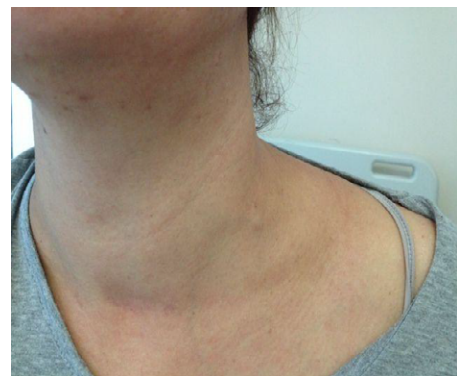


**Figure 1:** Doppler ultra sound (US) found swelling with an occluded thrombosed superficial jugular vein.

An emergency gastroscopy was performed and found multiple ulcerations of the gastric mucosa in the lesser gastric curve, and biopsies were sent with a clinical diagnosis of cancer.

Biopsies revealed signet cell weight carcinoma (Figure 3). She started treatment with low molecular heparin injections to dissolve the thrombus, and a series of chemotherapy treatments were given. Now, it is more than 6 months after diagnosis and the patient feels better but she is still on chemotherapy regimen. The jugular thrombosis was treated with sub cutaneous low molecular weight heparin and was resolved within 3 months.

Virchow node (signal node) is a lymph node in the left supraclavicular fossa (the area above the left ventricle). It takes its supply from the lymph vessels in the abdominal cavity [1]. It is named after Rudolf Virchow (1821-1902) a German pathologist who first described the gland and its association with gastric cancer in 1848 [2]. The pathologist Charles Emile Troisier noted in 1889 that other



**Figure 2:** Diagnosis of an enlarged supraclavicular left sided lymph node.

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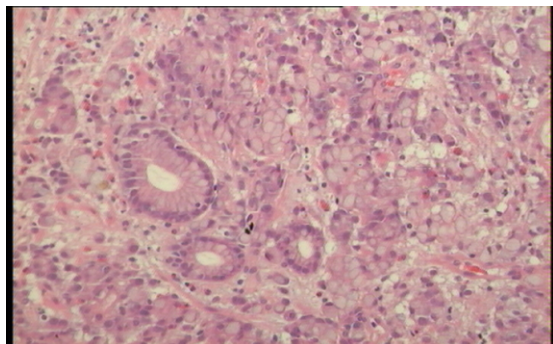


Figure 3: Biopsies revealed signet cell carcinoma.

abdominal cancers could spread to the node [3].

A retrospective study reviewed 152 fine needle aspiration biopsies of supraclavicular lymph nodes and found that 87 were from the left side and 65 from the right. 96 biopsies were cancerous and among them 58 were from the left and 38 from the right. Most of the abdominal and pelvic tumors metastasized to the left side, and that tumors that involved the left side were different from the right side [4].

AS for the treatment of the jugular vein thrombosis, According to different guidelines solid tumors with a tendency to develop venous-thrombo-emboli are treated with low molecular heparin. In patients with solid tumours, low molecular weight heparin is recommended for those with established venous-thrombo-emboli (VTE) and for those without established VTE but with a high risk for developing VTE. Options for low molecular weight heparin include dalteparin, enoxaparin, and tinzaparin. No one agent can be recommended over another, but in the setting of renal insufficiency, tinzaparin is preferred [5].

In this case we demonstrated the importance of physical diagnosis and medical reasoning that made the diagnosis and directed us to perform the right procedures that diagnosed the gastric cancer. The thrombus is also quite rare at that position and is another marker of clinical importance that strengthens the importance of quick and precise diagnosis-that was guided by clinical examination. The unique novelty in this case is not the clinical sign-known for many years-but the fact that so many physicians did not realize that it could be related to gastric cancer, the way that this patient was managed-she was referred first to the ear nose and throat physician who thought that there is a tumor in the neck and sent her to do the ultra sound. Then, the main focus was on the thrombus, the radiologist and the head and neck surgeons couldn't understand it, and only then she was referred to the Internist who made the diagnosis right away by the physical examination.

It teaches us that we should go back to the basics of Medicine-every clinical investigation should start with the internal medicine physician and only then should be referred to other specialties and sub specialties.

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