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Case Study

Submandibular New Growth or Thyroid Mass? The Power of Good History Taking Exemplified: A Case Report

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Abstract

Background: In today's era of modern and fast-paced medicine where clinicians are highly dependent on diagnostic imaging and various laboratory tests, is there still a role for an in-depth history taking and a thorough physical exam? This patient case is a perfect example showing us that the basic skill of taking a good patient history is still indispensable even in this day and age.

Case Summary: We describe a case of a patient with a lateral neck mass that initially gave clinicians a diagnostic dilemma, but at the latter part of the patient's clinical course biopsy results proved that accurate patient history is still indispensable. A 67-year-old woman was admitted due to a growth at the left lateral neck area. Patient claimed that the mass was first noted 12 years prior to admission as a coin sized growth at the left paramedial supraclavicular area of the neck –suggesting a possible thyroid neoplasm. However, physical examination upon admission revealed the presence of a 13 x 20 cm non-tender, movable, multi-nodular left submandibular mass –pointing to a possible primary submandibular neoplasm with extension to the thyroid area. Fine needle aspiration biopsy (FNAB) revealed atypical cells admixed with acute and chronic inflammatory infiltrates and computed tomography (CT) scan showed a multiloculated cystic mass at the left anterolateral area of the upper neck with lymphadenopathies –making the mass more likely of submandibular origin. However, post-operative surgical histopathology revealed a Papillary Thyroid Carcinoma –supporting the crucial importance of accurate patient history taking.

Conclusion: This case report exemplifies the fact that despite the diagnostic advancements in clinical medicine, the patient's history is still the most vital component of diagnostic problem solving.

Keywords: Submandibular; Thyroid Mass; Good History Taking; Case Report

Background

In medical school, we have always been taught that a good patient history and physical exam is one of the, if not the most, important tools a physician should have since it can lead one to a diagnosis 80-90% of the time [1]. However, in today's era of modern and fast-paced medicine where clinicians are highly dependent on diagnostic imaging and various laboratory tests, is there still a role for an in-depth history taking and a thorough physical exam? This patient case is a perfect example showing us that the basic skill of taking a good patient history is still indispensable even in this day and age.

Case Presentation

A 67-year-old woman was admitted due to a left lateral neck mass. History of present illness revealed that 12 years prior to admission (PTA), patient noted a 1-peso coin-sized mass (approximately 1.5 x 1.5 cm) at the left supraclavicular area of the neck. No consult was done, and no medications were taken. 5 years PTA, patient noted that the mass increased in size, still at the left supraclavicular area of the neck, with minimal difficulty of swallowing solid food and hoarseness of voice. Patient then sought consult at a local district hospital, was given unrecalled medications with good compliance but no relief of symptoms. The patient was then

advised surgery but refused due to financial constraints. 1-month PTA, the mass was noted to have rapidly enlarged with increased difficulty of swallowing, urging the patient to seek consult at a tertiary hospital and was advised surgery, thus admission.

Family history revealed that one of the patient's aunts at the maternal side had a thyroid mass. The patient has no medical comorbidities, is a non-smoker, non-alcoholic drinker, and could not remember prior exposure to radiation of any form. Review of systems did not reveal any manifestation that points to thyroid problems other than weight loss of approximately 30% in the last 3 months.

Timeline of patient symptoms

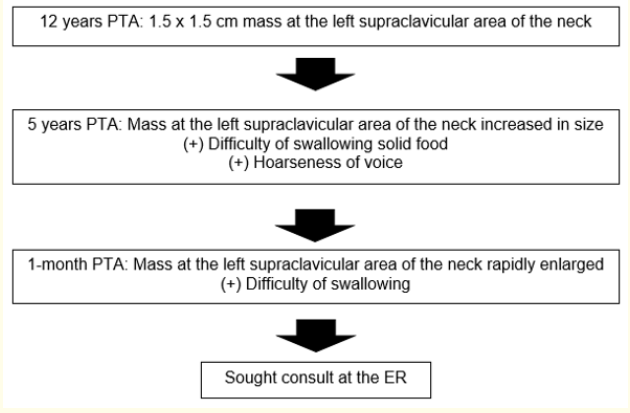

Figure a

Investigations

Patient's vital signs were stable and within normal limits. Physical examination revealed a 13 x 20 cm non-tender, movable, multi-nodular, cystic mass at the left submandibular area, with the presence of bilateral cervical lymphadenopathies (Figure 1). Anterior and posterior rhinoscopy was unremarkable. A pinkish mass measuring approximately 1 x 2 cm was noted at the left lateral hypopharyngeal wall together with a whitish supra-glottic mass (Figure 2). Serologic laboratory results including thyroid function tests were all within the normal range.

CT scan revealed that the left thyroid lobe was calcified, with multi-loculated cystic masses at the left anterolateral neck area; and lymphadenopathies on the bilateral supraclavicular, internal jugular chain, and retropharyngeal areas (Figure 3).

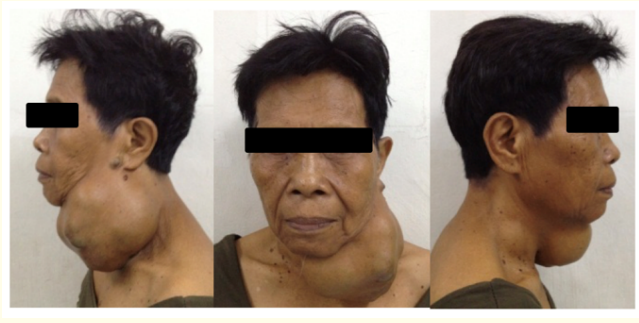

Figure 1: A 13 x 20 cm non-tender, movable, multi-nodular cystic mass at the left submandibular area, with the presence of bilateral cervical lymphadenopathies.

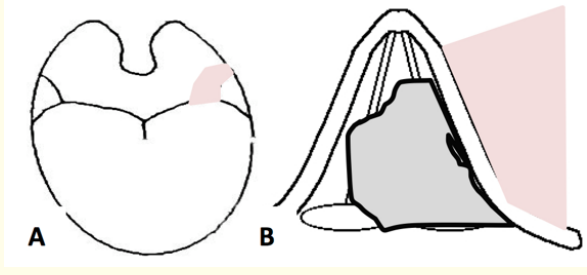

Figure 2: A. Direct inspection revealed a pinkish mass measuring approximately 1x2 cm at the left lateral hypopharyngeal wall; B. A whitish supraglottic mass was also noted, and both vocal cords could not be appreciated. (Figure 2 is an original drawing made by the author, Dr. Frederic Ting, to illustrate the direct laryngoscopy findings).

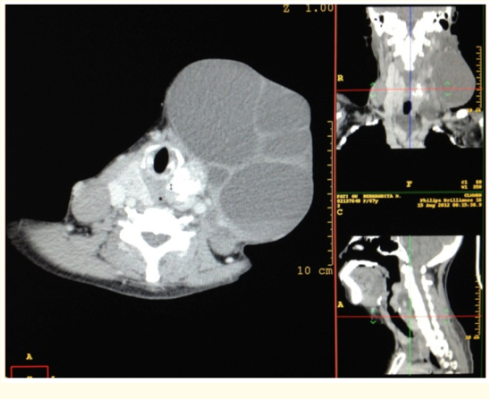

Figure 3: CT Scan revealed a slightly-enhancing, fairly defined, isodense, ovoid, solid lesion with surrounding coarse calcification in the left thyroid. The mass extended superiorly into the left portion of the supraglottic larynx occupying the left paralaryngeal fat space until the level of the oropharynx.

Differential diagnosis

Three possibilities were considered. First, our primary consideration was a thyroid neoplasm with large lymphadenopathies extending to the submandibular area – a disease entity highly favored by the patient's history. Secondly, a primary submandibular gland carcinoma with lymphadenopathies and an incidental thyroid CA is also considered due to the patient's current clinical presentation and physical exam. Furthermore, a lymphoma cannot be totally ruled also due to the pattern and location of the tumor growth [2-6].

Treatment

Surgery is the definitive management of localized thyroid cancer [7-10], and although the clinicians were not 100% ascertained by the initial diagnostics that this was indeed primary thyroid cancer, they decision to operate was brought about by the patient's worsening dyspnea and dysphagia.

Intra-operatively, the thyroid gland was noted to be enlarged bilaterally but more so on the left, with extension to the prevertebral tissue and submandibular gland. Thus, a total thyroidectomy with modified radical neck dissection and central neck dissection was done.

Outcome and follow-up

The post-operative specimen histopathology reported Papillary Thyroid Carcinoma, well differentiated involving the right and left lobe and the isthmus; positive for capsular and lymphovascular space invasion with extension to the prevertebral tissue and the submandibular gland; positive for metastatic carcinoma in 2 out of 2 perithyroidal lymph nodes, 11 out of 20 left neck lymph nodes, 3 out of 4 level II lymph nodes, 3 out of 6 central lymph nodes. Final histopathological diagnosis is Papillary Thyroid Cancer Stage IVA (T3 N1b M0) [11,12]. The patient was then advised and scheduled for radioactive iodine (RAI) treatment post-operatively. As of this writing, patient is already post-RAI treatment and is apparently well. No adverse events occurred in this case.

Discussion

It has always been taught that a clinical diagnosis is mostly revealed in the patient's history -as what our senior medical professors and consultants would always remind us, "Listen to your patients. They are telling you the diagnosis".

Listening is at the heart of good history taking since the patient's perspective of the history is indispensable. The physician's agenda, incorporating lists of detailed questions, should not dominate the history taking. More often than not, the history alone is sufficient to reveal a diagnosis. Sometimes, it is all that is required to make the diagnosis.

The authors firmly believe that the most important attribute of any good doctor is to be a good listener since bulk of the very essential clinical information needed to make a diagnosis is gathered from a good patient history than from physical examination and laboratory investigations.

Conclusion

This case report exemplifies the fact that despite the diagnostic advancements in clinical medicine, the patient's history is still the most vital component of diagnostic problem solving. It is a must for physicians to listen carefully to patients since the patient's history is the most vital component of diagnostic problem solving.

Learning Points

- The most important attribute of any good physician is being a good listener.
- The patient's history is the cornerstone of diagnostic problem solving.
- More important information relevant to making a clinical diagnosis is often gathered from a good history than from physical examination and laboratory investigations.

Declarations

Conflicts of Interest

The authors have nothing to disclose and have no conflicts of interest in writing this paper.

Ethics Approval and Consent to Participate/Consent for Publication

This report has undergone ethics approval from the institution with informed consent from the patient to participate and for publication.

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Author's Contributions

Both authors were involved with the write-up of the paper.

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