UNEXPECTED FINDINGS IN NECK DISSECTION FOR SQUAMOUS CELL CARCINOMA: INCIDENCE AND IMPLICATIONS

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Abstract: Background. During the pathologic examination of neck dissections, unexpected pathologic findings may occasionally be encountered. These pathologic findings may simulate malignant disease and/or have implications on the already complicated management of patients with head and neck cancer.

Methods. We retrospectively reviewed 202 consecutive patients with a preoperative diagnosis of squamous cell carcinoma (SCC), who underwent 307 neck dissections performed by a single surgeon and examined by a single pathologist.

Results. Ten patients had an unexpected finding. These included metastatic papillary thyroid carcinoma, leukemia, lymphoma, Warthin’s tumor, and tuberculosis. Two of three patients with benign-appearing thyroid tissue within lymph nodes received no further treatment, and both remained well beyond 6 years. Four patients succumbed to SCC; none died from the incidentally discovered pathologic findings.

Conclusions. Unexpected pathologic findings may be present in more than 3% of neck dissections. Although this is usually indolent, with the underlying SCC remaining the main prognostic determinant, it may significantly complicate postoperative management.

Keywords: neck dissection; squamous cell carcinoma; ectopic thyroid; leukemia; tuberculosis

During the pathologic examination of neck dissection specimens, unexpected findings within lymph nodes may occasionally be uncovered.1,2 Such findings may include the presence of a second primary tumor or of chronic infectious or inflammatory disease, the discovery of which may have implications on management and prognosis. On other occasions, the unexpected finding may have the appearance of benign ectopic tissue but may be suspicious of metastatic disease or other more sinister pathologic condition because of its location within lymph nodes. The importance of such dual pathology relates not only to the direct implications of the second pathology on the management and prognosis of the patient but also to the potential for simulating metastatic disease from the original tumor, resulting in possible diagnostic and, hence, decision-making error.

Recognition of the potential for unexpected pathologic findings in patients with head and neck cancer and of the implications of the discovery of such pathologic finding on management and prognosis is thus an area of considerable importance; however, there is a scarcity of data in the literature regarding the incidence and outcome of such unexpected findings.

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Ratcliffe and Soutar\(^1\) reported an incidence of unexpected pathologic findings of 11% among a series of 62 patients undergoing neck dissection in Scotland. More recently, Ansari-Lari and Westra\(^2\) reported on the incidence of unexpected pathologic findings in 1337 patients undergoing cervical lymphadenectomy over a 17-year period; however, this series included patients operated on by many different surgeons and also included patients undergoing cervical lymph node sampling for nonmalignant conditions, and so may not truly reflect the experience among those patients with head and neck cancer undergoing neck dissection as part of the definitive treatment of their malignancy.

This article reports on the incidence and outcome of unexpected lymph node pathologic findings in a large series of patients, all having a similar preoperative diagnosis (head and neck squamous cell carcinoma) and having similar indications for undergoing neck dissection (as part of definitive treatment); all undergoing a similar operation (selective or modified radical neck dissection) performed by a single surgeon; and all having their neck specimens processed and examined in a similar fashion by a single pathologist. Our objective in studying such a homogeneous group of cases was to determine the incidence and implications of unexpected pathologic findings in a group of patients who are specifically representative of those patients requiring neck dissection that are likely to be encountered by the head and neck surgeon, as well as having similar prognosis and management issues.

**METHODS**

We retrospectively reviewed the clinical and pathologic records of all patients with a diagnosis of head and neck cancer who underwent neck dissection under the care of the senior author (CT) over a 10-year period between September 1993 and September 2003. All operations had been performed by or supervised by the same consultant surgeon (CT). The processing of the neck dissection specimens was performed in the same fashion for all cases. The neck dissection specimens were pinned out on a cork board by the surgeon in the operating theater and sent to the laboratory fresh, along with a surgical diagram. Macroscopic examination and sectioning of the fresh specimens was then performed by the pathologist (MT). After this, the tissues were fixed in formalin and subsequently paraffin embedded, sectioned, and stained with hematoxylin and eosin for microscopic examination. Patients were included in this review only if they had a preoperative diagnosis of squamous cell carcinoma (SCC) of the head and neck (on the basis of the results of fine-needle aspiration biopsy or biopsies taken at panendoscopy); had undergone selective or modified radical neck dissection as part of their definitive treatment; and were found on pathologic examination to harbor an unexpected finding in a cervical lymph node that was considered to be clinically significant. Patients with an unknown diagnosis preoperatively, whose neck dissection findings turned out to be unexpected, were not included. The same consultant pathologist (MT) reviewed the pathologic material of all patients with unexpected findings, and the clinical outcome was determined by review of the medical records.

**RESULTS**

During the period of review, 274 patients underwent neck dissection under the care of the senior author. A preoperative diagnosis of SCC, made on the basis of the results of fine-needle aspiration biopsy, or biopsies taken at panendoscopy, was present in 202 of these. Among this group, 97 underwent unilateral neck dissection, and 105 underwent bilateral neck dissection, for a total of 307 neck dissections in patients with a preoperative diagnosis of SCC. Radical or modified radical neck dissection was performed in 173 cases, and selective neck dissection in 134 cases. The mean number of lymph nodes dissected per radical/modified radical neck dissection specimen was 33.7, and the mean number of nodes dissected per selective neck dissection was 20.0.

Ten patients (5.0%) had an unexpected finding. The most common unexpected finding was aberrant thyroid tissue within lymph nodes, suggestive of metastatic papillary thyroid carcinoma, which was present in four patients. Two patients were found to have chronic lymphocytic leukemia (CLL), one had a low-grade B-cell non-Hodgkin’s lymphoma (NHL), one had a Warthin’s tumor, and two had tuberculous lymphadenitis (Table 1). The sites of primary disease in the patients with unexpected findings were retromolar trigone (three cases), supraglottic larynx (one case), postcricoid region (one case), oropharynx (one case), maxilla (one case), and skin (three cases). One of the patients with a skin primary tumor had previously received radiotherapy to the pinna and the neck.
None of the other patients had previously undergone neck dissection or received radiotherapy.

Pathologic findings suggestive of metastatic papillary thyroid carcinoma were present in four patients. In three patients, this finding consisted of clusters of thyroid follicles within lymph nodes that, although benign in appearance, were interpreted on the basis of their location to represent metastases from well-differentiated thyroid cancer. In two of these patients, a single node was involved; in the third, thyroid follicles were present in multiple nodes in close proximity to the thyroid gland. In the fourth patient, thyroid tissue displaying cytologic features suggestive of malignancy (tall cells, grooved overlapping nuclei) was present in a single node.

Thyroidectomy was performed on two of four patients. One, with advanced postcricoid carcinoma and benign-appearing thyroid follicles in multiple lymph nodes that, although benign in appearance, were interpreted on the basis of their location to represent metastases from well-differentiated thyroid cancer. In two of these patients, a single node was involved; in the third, thyroid follicles were present in multiple nodes in close proximity to the thyroid gland. In the fourth patient, thyroid tissue displaying cytologic features suggestive of malignancy (tall cells, grooved overlapping nuclei) was present in a single node.

Table 1. Details of clinical and pathologic findings.

<table>
<thead>
<tr>
<th>Patient</th>
<th>Age</th>
<th>Sex</th>
<th>Site of primary SCC</th>
<th>Type of neck dissection</th>
<th>SCC in neck</th>
<th>Unusual finding</th>
<th>Management</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>72</td>
<td>M</td>
<td>RMT</td>
<td>Modified radical</td>
<td>No</td>
<td>Thyroid follicles</td>
<td>Observation</td>
<td>Well 6 y</td>
</tr>
<tr>
<td>2</td>
<td>57</td>
<td>F</td>
<td>Supraglottis</td>
<td>Bilateral modified radical</td>
<td>No</td>
<td>Thyroid follicles</td>
<td>Observation</td>
<td>OC 7 y</td>
</tr>
<tr>
<td>3</td>
<td>55</td>
<td>F</td>
<td>Postcricoid</td>
<td>Bilateral selective</td>
<td>Yes</td>
<td>Thyroid follicles (multiple nodes)</td>
<td>Thyroidectomy</td>
<td>Well 7 y</td>
</tr>
<tr>
<td>4</td>
<td>58</td>
<td>F</td>
<td>Maxilla</td>
<td>Selective</td>
<td>No</td>
<td>Papillary carcinoma</td>
<td>Thyroidectomy</td>
<td>Well 3 mo</td>
</tr>
<tr>
<td>5</td>
<td>82</td>
<td>M</td>
<td>Skin</td>
<td>Modified radical</td>
<td>Yes</td>
<td>CLL</td>
<td>Radiotherapy (palliative)</td>
<td>OC 7 y</td>
</tr>
<tr>
<td>6</td>
<td>71</td>
<td>M</td>
<td>Oropharynx</td>
<td>Modified radical</td>
<td>Yes</td>
<td>CLL</td>
<td>Chemotherapy</td>
<td>Well 14 mo</td>
</tr>
<tr>
<td>7</td>
<td>70</td>
<td>M</td>
<td>Skin</td>
<td>Radical</td>
<td>Yes</td>
<td>NHL</td>
<td>Radiotherapy</td>
<td>DM 14 mo</td>
</tr>
<tr>
<td>8</td>
<td>55</td>
<td>M</td>
<td>RMT</td>
<td>Modified radical</td>
<td>Yes</td>
<td>Warthin's tumor</td>
<td>None</td>
<td>Well 2 y</td>
</tr>
<tr>
<td>9</td>
<td>55</td>
<td>M</td>
<td>Skin</td>
<td>Radical</td>
<td>No</td>
<td>TB</td>
<td>Chemotherapy</td>
<td>DM 9 mo</td>
</tr>
<tr>
<td>10</td>
<td>66</td>
<td>M</td>
<td>RMT</td>
<td>Selective</td>
<td>Yes</td>
<td>TB</td>
<td>None</td>
<td>RIP from SCC 9 mo</td>
</tr>
</tbody>
</table>

Abbreviations: SCC, squamous cell carcinoma; CLL, chronic lymphocytic leukemia; NHL, non-Hodgkin’s lymphoma; TB, tuberculosis; RIP, dead; OC, died from other causes; DM, distant metastases from SCC.

In both of the patients with CLL and the patient with NHL, there was infiltration of multiple nodes by the second malignancy. In addition, all three had cervical metastases from the primary SCC. One of the patients with CLL initially had a neck mass and weight loss without evidence of disease at any primary site. The initial clinical suspicion was lymphoma. Fine-needle aspiration revealed SCC on a background of small lymphocytes. An oropharyngeal (tonsillar) primary tumor was subsequently discovered at panendoscopy. The other patient with CLL was initially seen with a neck lump shortly after completing radiotherapy for an SCC of the pinna, whereas the patient with NHL was initially seen with an SCC of the skin over the parotid in association with an upper deep cervical node. Lymphoma was not suspected.

One of the patients with CLL underwent chemotherapy in addition to radical radiotherapy (chlorambucil + fludarabine) and was in remission.
with no evidence of his primary SCC 14 months later. The other two also received radiotherapy; however, recurrent SCC developed in both. The patient with CLL died 4 months after his surgery, and the patient with NHL was alive with uncontrolled SCC 14 months later.

One patient had the most unusual finding of a Warthin’s tumor within a lymph node close to the submandibular gland. The submandibular gland was also removed as part of the neck dissection and did not contain tumor. Metastatic SCC was present in one node. No further investigation to find the origin of the Warthin’s tumor was performed. The patient underwent postoperative cervical radiotherapy and was well with no evidence of disease 2 years after surgery.

In two patients, tuberculosis was suspected on the basis of extensive confluent granulomatous lymphadenitis. In one of these, the diagnosis of tuberculosis was confirmed after Ziehl-Neelsen (ZN) staining showed evidence of acid-fast bacilli (AFB). This patient had a normal chest CT scan preoperatively, and the diagnosis of tuberculosis was completely unexpected. In the other, preoperative chest CT showed bilateral scarring and upper lobe masses. Bronchoscopy and transbronchial biopsies were performed to rule out metastatic disease. The biopsies showed inflammation with necrosis and occasional granulomas but no evidence of either malignancy or tuberculosis. The patient proceeded to undergo modified radical neck dissection. Most of the lymph nodes in the neck specimen showed extensive granulomatous inflammation, although ZN stains and mycobacterial cultures were once again negative. Blood work for sarcoidosis and Wegener’s granulomatosis (angiotensin-converting enzyme, antineutrophilic cytoplasmic antibody) were also negative. At this point, the diagnosis of tuberculosis was made on histologic grounds, in the absence of demonstrable AFB, and the patient was begun on antituberculous chemotherapy. Both patients with tuberculosis had early recurrence of SCC.

In addition, four patients who underwent neck dissection with a presumed diagnosis of SCC transpired to have an unexpected histologic finding. The final histologic findings in these patients included moderately differentiated neuroendocrine carcinoma (preoperative diagnosis supraglottic SCC); Merkel cell carcinoma (preoperative diagnosis skin SCC); and adenosquamous carcinoma (two cases, preoperative diagnoses supraglottic SCC and floor of mouth SCC).

**DISCUSSION**

The purpose of this study was to examine the incidence of discovery of unexpected pathology among patients with head and neck cancer undergoing neck dissection and to determine the impact of this pathology on the management and prognosis of such patients. Unlike Ansari-Lari and Westra, however, we ensured a homogenous sample by including only patients with a preoperative diagnosis of SCC, all with similar indications for surgery, which was performed by the same surgeon, and all having their neck specimens processed in the same fashion. Studying such a homogenous group is important for several reasons: first, the incidental discovery of pathology in patients undergoing neck surgery for different indications may not reflect the incidence of finding such pathology in patients undergoing neck dissection for cancer; second, the potential for confusing the unexpected pathology with metastases from the original tumor is unlikely in patients with nonmalignant conditions; and finally, the implications of the unexpected pathology on management and prognosis are likely to be considerably different between patients with malignant and nonmalignant conditions. Ratcliffe and Soutar also studied a homogenous group of patients; however, the number included in this series is considerably larger than that reported by Ratcliffe and Soutar.

The findings of this study demonstrate an incidence of unexpected pathology in cervical lymph nodes of 5.0% of patients with head and neck SCC. Malignant tumors were present in 2.0%, with a further 1.5% harboring benign-appearing thyroid follicles that were considered suspicious for metastatic thyroid cancer. Tuberculosis was discovered in 1.0% of patients. These figures are even higher than those reported by Ansari-Lari and Westra and may reflect the differences in the study populations.

The most common incidental finding in this study was that of so-called lateral aberrant thyroid nodules (ie, the presence of thyroid tissue within lymph nodes), which was considered suspicious of metastatic papillary thyroid carcinoma. The significance of such thyroid follicles within cervical lymph nodes is controversial. When thyroid tissue is found in an enlarged neck mass, an incidence of thyroid cancer in the ipsilateral thyroid lobe of 100% has been reported by several authors after thyroid lobectomy and pathologic examination of multiple sections, even in cases in
which the thyroid gland is clinically and radiologically normal.\cite{3-6} In such cases, the primary tumor within the thyroid gland may be less than 4 mm.\cite{2-5} Thus, the finding of thyroid within an enlarged neck node, even in the presence of a clinically and radiologically normal thyroid gland, is generally considered to be always representative of metastatic papillary thyroid carcinoma.\cite{3-6}

On the other hand, considerable difference of opinion exists regarding the significance of benign-appearing thyroid follicles within lymph nodes that are incidentally discovered during the course of neck dissection or other cervical surgery. Gerard-Marchant\cite{7} reported five such cases among 647 radical neck dissections, for an incidence of 0.03% per lymph node and 0.6% per patient, and suggested that these inclusions were more likely to represent benign ectopic thyroid inclusions rather than metastatic thyroid cancer on the basis that they lacked histologic or cytologic features of malignancy. However, information was not provided regarding clinical or pathologic examination of the thyroid gland or regarding clinical follow-up. Meyer and Steinberg\cite{8} reported five cases of thyroid follicle inclusions within lymph nodes in 106 autopsies. Pathologic examination of the thyroid gland revealed one case of thyroid carcinoma in the contralateral lobe; however, the authors considered this to be incidental to the thyroid inclusion, because it was histologically dissimilar. Several other cases of ectopic thyroid tissue within lymph nodes, without evidence of primary thyroid carcinoma, have also been reported.\cite{9} Kozol et al\cite{10} reported on a series of 16 patients with ectopic thyroid tissue, which was incidentally discovered during the evaluation and treatment of primary hyperparathyroidism or benign thyroid disorder. Thyroid resection was performed in eight patients, and none showed evidence of thyroid cancer. However, the ectopic thyroid tissue described by Kozol et al consisted in all cases of well-circumscribed nodules within the central compartment of the neck without any associated lymphoid tissue. Others have suggested that these nodules merely represented sequestered fragments of colloid goiters (so-called parasitic nodules), rather than true “lateral aberrant thyroid nodes,” which are usually found to be associated with thyroid cancer.\cite{10} In addition, other authors have reported that metastases from occult thyroid carcinomas may consist solely of follicular elements that closely resemble normal thyroid follicles.\cite{11,12} Furthermore, the smaller the metastasis, the more prominent the normal-appearing follicular portion may be.\cite{11} Butler et al\cite{11} also argued that failure to detect a primary thyroid tumor by clinical, radiologic, or even pathologic examination may be due to the small size of the occult primary lesion and that given the low order of malignancy of occult thyroid carcinoma, the significance of thyroid follicles cannot be determined by follow-up studies.

Among more recent series of patients with incidentally discovered “lateral aberrant thyroid” nodes in the presence of a clinically and radiologically normal thyroid gland, the frequency of finding a primary intrathyroid lesion has varied (Table 2).\cite{2,13-16} However, it would seem that the

<table>
<thead>
<tr>
<th>Author</th>
<th>Total no. of patients undergoing neck dissection (where stated)</th>
<th>No. of cases of “lateral aberrant thyroid”</th>
<th>No. undergoing thyroidectomy</th>
<th>No. of intrathyroid primary tumors identified</th>
<th>No. of patients not undergoing thyroidectomy receiving RAI</th>
<th>No. of patients receiving no treatment*</th>
<th>Outcome of patients receiving no treatment*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vassilopoulou-Sellin and Weber\cite{13}</td>
<td>2855</td>
<td>8</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>Well after 1–4 y</td>
</tr>
<tr>
<td>Ansari-Lari and Westra\cite{2}</td>
<td>1337</td>
<td>21†</td>
<td>11</td>
<td>8</td>
<td>0</td>
<td>5</td>
<td>Well after 0–7 y</td>
</tr>
<tr>
<td>Mattavelli et al\cite{14}</td>
<td>NA</td>
<td>6</td>
<td>5</td>
<td>5</td>
<td>0</td>
<td>1</td>
<td>RIP due to SCC</td>
</tr>
<tr>
<td>Fliegelman et al\cite{15}</td>
<td>NA</td>
<td>5</td>
<td>5</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>NA</td>
</tr>
<tr>
<td>Coskun et al\cite{16}</td>
<td>229</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>NA</td>
</tr>
<tr>
<td>Present</td>
<td>274</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>Well after 0–7 y</td>
</tr>
</tbody>
</table>

Abbreviations: RAI, radiiodine treatment; NA, not applicable.
*Receiving no treatment (ie, not undergoing either thyroidectomy or RAI).
†Ten cases considered on basis of cytopathologic features to be metastatic papillary thyroid carcinoma, nine considered to be thyroid inclusions, and two psammoma bodies.
histologic appearance of the thyroid tissue is a most useful predictor of the risk of thyroid cancer. Ansari-Lari et al used the criteria proposed by Rosai et al\textsuperscript{17} to distinguish between thyroid inclusions and metastatic foci (thyroid inclusions limited to a few small follicles in a single lymph node, located in or immediately beneath nodal capsule, and not demonstrating any cytoarchitectural features of papillary carcinoma).\textsuperscript{17} No further treatment was administered to any of the five patients in their series having such defined thyroid inclusions, and one remained without evidence of thyroid disease for more than 7 years. The remainder were either lost to follow-up or died from their original cancer within 2 years.\textsuperscript{2} Vassilopoulou-Sellin and Weber’s series\textsuperscript{13} included three such patients, who were managed with observation alone and remained without clinically apparent thyroid disease for up to 4 years subsequently.

In this study, three cases of benign-appearing thyroid follicles within lymph nodes were discovered, none having cytopathologic features suggestive of malignancy; however, the case with multiple nodes in close proximity to the thyroid gland may, in retrospect, have represented “parasitic nodules” rather than true “lateral aberrant thyroid nodes.” The incidence of “thyroid inclusions” in our series was 1.5% per patient and 0.07% per node and is slightly higher than that reported by Gerard-Marchant.\textsuperscript{7} Thyroidectomy in the patient with the multiple involved nodes failed to reveal any primary focus of carcinoma; however, the entire thyroid gland showed florid lymphocytic thyroiditis with fibrosis. No area suspicious of primary thyroid cancer was detected on thyroid ultrasonography and radioisotope uptake scanning in either of the other two. Neither of these patients received postoperative cervical radiotherapy or postoperative radiiodine treatment, and none had further evidence of thyroid disease develop. The length of observation in two of these cases (6 and 7 years) is as long as that for any previously reported case of “lateral aberrant thyroid nodes” undergoing observation alone, inclusive of cases considered to represent either benign inclusions or metastases. Only one of the cases in Ansari-Lari and Westra’s series\textsuperscript{2} has a comparable length of observation; however, there is no information regarding whether this patient received postoperative cervical radiotherapy for SCC. Thus, the findings of this study provide the strongest evidence to date supporting the safety of observing cases of incidentally discovered lateral aberrant thyroid nodes, provided that there are no obvious cytopathologic features of malignancy, and thyroid imaging fails to detect an intrathyroid lesion.

Infiltration of lymph nodes by CLL was discovered in this study in two patients and by NHL in one patient. The presence of metastatic SCC and leukemia in the same lymph node, as seen in the present cases, is extremely rare and rarely documented. We are aware of only two other reported cases of CLL and SCC coexisting in a lymph node.\textsuperscript{1,18} Incidentally discovered lymphomas are more commonly reported.\textsuperscript{2} In Ansari-Lari and Westra’s study, malignant lymphomas were incidentally discovered in 0.4% of neck dissections. All but one of the cases in their report were low-grade lymphomas. That incidentally discovered malignancies are more likely to be indolent and low grade was reflected by the findings of this study. Only one patient in either study received treatment for his lymphoreticular malignancy. It is likely that this is largely reflective of the fact that the prognosis in most patients with a low-grade lymphoreticular malignancy discovered during neck dissection for SCC is mainly determined by the SCC.

One patient in this series had a benign Warthin’s tumor within a cervical lymph node. This is a most unusual finding, and we are aware of only two other reported cases.\textsuperscript{19,20} The origin of the tumor is not fully clear; however, we believe that it most likely arose from ectopic intranodal salivary tissue. Ectopic salivary tissue within cervical lymph nodes has been reported by several authors.\textsuperscript{21,22} It is believed to arise as a result of the close anatomic relationship between the migrating salivary glands and the developing upper cervical lymph nodes at the sixth week of gestation, before the formation of the salivary gland capsule from the surrounding mesenchyme. In support of this theory, Brown et al\textsuperscript{21} reported histologic evidence of salivary tissue within cervical lymph nodes in all of 19 stillborn fetuses. Rarely, intranodal salivary tissue may give rise to tumors. In addition to Warthin’s tumors, pleomorphic adenoma,\textsuperscript{23} mucoepidermoid carcinoma,\textsuperscript{24,25} and acinic cell carcinoma\textsuperscript{26} have been reported.

Finally, granulomatous adenitis suggestive of tuberculosis was discovered incidentally in two patients. The diagnosis of tuberculosis was confirmed in one by the demonstration of AFB by ZN staining. In the other, the diagnosis was made on histologic grounds in the absence of demonstrable AFB after extensive respiratory investigation.
The presence of coexistent tuberculous cervical adenitis and head and neck SCC is rarely documented. Ratcliffe and Soutar\(^1\) reported four cases of incidentally discovered tuberculous adenitis among 62 neck dissection specimens. Ritter et al\(^2\)\(^7\) reported on three cases in which a cervical metastasis from SCC presented as a tuberculous neck abscess. On the basis of their reports, they recommended biopsy of the abscess wall in all cases of neck abscess. Tuberculosis continues to be prevalent in the community.\(^2\)\(^8\) Thus, the possibility of coexistent tuberculosis should always be borne in mind in patients undergoing head and neck surgery, not least because of its likely adverse effects on general health status and wound healing; its potential for confusion with metastatic disease on chest radiographs or CT scans; and its implications for infection control, particularly in patients with tracheostomies.

**CONCLUSION**

Unexpected pathology may be discovered during neck dissection in more than 5% of patients with head and neck cancer. Malignant tumors may be present in nearly half of these. Thyroid tissue within lymph nodes is the most common incidental finding and may present management dilemmas. Our results would suggest that when thyroid follicles within lymph nodes have a benign appearance and when imaging fails to reveal an intrathyroid primary lesion, no further intervention other than observation is required. A substantial incidence of leukemia/lymphoma and tuberculosis may be uncovered and may reflect deficient immune surveillance in the host. In general, incidentally discovered pathology tends to be indolent in nature, with the underlying SCC remaining the main determinate of the patient's prognosis. However, failure to recognize and treat an unexpected pathology may have adverse effects on outcome. Furthermore, unexpected pathology may masquerade as metastases from the original SCC. For these reasons, the potential for unexpected pathology during neck dissection should be always borne in mind by the pathologist and head and neck surgeon alike.

**REFERENCES**


