University of Medicine and Pharmacy of Craiova Faculty of Medicine

ETIOPATHOGENETIC, HISTOLOGICAL, IMMUNOHISTOCHEMISTRY, DIAGNOSTIC AND THERAPEUTIC CURRENT IN APPARENT PRIMITIVE AND SECONDARY NEOPLASTIC ENT ADENOPATHIES

DOCTORAL THESIS SUMMARY

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SUMMARY

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KEYWORDS:

Apparently primitive cervical metastatic lymph nodes, cervical lymph nodes secondary metastatic nodal neck dissection (radical dissection, modified radical, selective and extended neck), histopathology, immunohistochemistry, CK5, CK6, CK7, CK19, CK 20, AE1/AE3, 34betaE12, EBV, TTF1, HBME1, HMB45, S100, VIM.

ABBREVIATIONS

RND = Radical neck dissection
MRND = Modified radical neck dissection
SND = Selective neck dissection
END = Extensive dissection of the neck
AAP = Apparently primitive adenopathies
AS = Secondary adenopathies
CUP = Unknown primitive carcinoma
I. IMPORTANCE OF THE PROBLEM, MOTIVATION OF THE PAPER

Cancer is a public health problem, through the high frequency for the population, the negative impact and consequences causing them socially and economically, including the high cost of case management.

This paper proposes a study of metastatic cervical adenopathies, establishing the diagnostic criteria necessary for accurate determination of clinical, laboratory and evolution aspects, establish a correlation between the histological changes in lymph nodes and various ENT cancer, investigation and imaging surgical therapy and oncology, showing surgical techniques and their benefits and limitations tailored to each pathological entity.

II. MATERIAL AND METHODS

1. SCOPE OF THE PAPER

The scope of this paper is to research apparently primitive and secondary metastatic adenopathies of the neck, from the clinical, histological, immunohistochemical and therapeutic perspectives.

The objectives of the research were:

- Investigating different clinicopathological profiles of metastatic cervical adenopathies and tracking the algorithm for diagnosis of cervical adenopathies that are apparently primitive and also those secondary metastatic through which one can reach an etiologic diagnosis;
- The clinical research for the methods of development and growing of metastatic cervical lymph nodes that have as the starting point ENT neoplasia;
- Using immunohistochemical markers for research in lymphatic neoplastic lesions (in selected cases) with highlighting significant changes and their correlation with the clinical and morphological aspects;
- Compliance with treatment attitude of the standards proposed by the American Head and Neck Society (AHNS) and The American Academy of Otorinolaryngology - Head and Neck Surgery (AAO - HNS) for malignancies of the head and neck area, with reviewing the progress and the survival compared with data from the literature.

2. MATERIAL AND METHODS

1. The clinical study involved the evaluation and monitoring of a group of 252 patients with pathological node (apparently primitive and secondary metastatic adenopathies) admitted to the ENT Clinic of the Emergency County Hospital of Craiova during the period of 01.01.2004 - 01.12.2008.

2. The therapeutic study followed the surgical treatment conducted for metastatic adenopathies: a) secondary: removal of the primary tumor pathological process, where it was possible, while nodal neck dissection;
b) apparently primitive, only node neck dissection. Patients diagnosed with cervical lymph nodes that were apparently primitive and secondary metastatic cancer were made an oncology declaring file, being directed to the Department of Oncology and Radiotherapy.

3. **Histological and immunohistochemical study.** All biopsy parts (lymphs) were examined macroscopically and processed by paraffin inclusion technique, then they underwent hematoxylin-eosin usual staining (HE), Giemsa staining and immunohistochemical staining. For the immunohistochemical study, there was used for exposing specific markers the technique named as Streptavidin-Biotin Complex method (sABC) / Horse Radish Peroxide (HRP). There was performed a study focused on the immunohistochemical expression of immunohistochemical markers CK5, CK6, CK7, CK19, CK 20, AE1/AE3, 34betaE12, EBV, TTF1, HBME1, HMB45, S100, VIM.

**III. SUMMARY OF THE MAIN RESULTS**

1. **RESULTS AND DISCUSSIONS ON THE CLINICAL STUDY**

**Distribution by type of lymph**

Of the 252 patients, 228 (90.48%) had metastatic secondary lymphadenopathy and 24 (9.52%) had apparently primitive adenopathies. Thus, there was observed a statistically significant difference on the weight of the secondary metastatic adenopathies compared with the apparently primitive ones (p Chi square = 0.2214 < 0.05) (Graph 1).

![Graph 1. Distribution by type of lymph](image)

**Location of neoplasms accompanied by adenopathies**

Neoplasms accompanied by secondary metastatic cervical adenopathies were: larynx 83 cases (36.40%), pharyngolaryngeal 61 cases (26.75%), oropharynx 42 cases (18.42%), nasopharynx 21 cases (9.21%), hypopharyngeal 18 cases (7.89%), oro-hypopharingeal 2 cases (0.88%) and ear 1 case (0.44%). Apparently primitive metastatic adenopathies had a starting point at: nasopharynx 9 cases (37.5%), oropharynx 6 cases (25%), lungs in 2 cases (8.33%), esophagus in 2 cases (8.33%), submaxillary gland 1 case (4.16%), parotid gland 1 case (4.16%), thyroid 1 case (4.16%), hypopharynx 1 case (4.16%) and larynx 1 case (4.16%).
**Nodal areas affected**

Tumor invaded lymph node stations were the jugular-carotid ones, showing a significant difference for distribution of the apparently primitive adenopathies location, as against the secondary ones, the latter being over 90% of cases located in the jugular-carotid area (p Chi square = 1,51x 10^-14 <0.001 - high statistical significance threshold).

**Gender distribution of metastatic adenopathies**

Gender distribution of the study group showed an increased incidence of metastatic adenopathies for males (94.05%) than for females (5.95%) (p test z test of proportions << 0.001 - high statistical significance threshold). Distribution by gender and type of metastatic lymphadenopathy showed that for women the proportions are roughly equal in secondary (53.33%) with metastatic apparently primitive adenopathies (46.67%), while for men the ratio is ~13:1 in for secondary metastatic adenopathies (92.83%) to the apparently primitive adenopathies (7.17%) (Graph 2a, 2b).

**Distribution by age group**

Making the comparison on how the distribution per age in the two types of metastatic lymph nodes have demonstrated differences between them (p = 0.00625 < 0.01), that indicate a highly statistically significant result (Graph3).
The average age of the patients with secondary metastatic lymph nodes was 59.15 with a standard deviation of 9.84 and a coefficient of variation of 16.64%. For apparently primitive metastatic adenopathies, the average age recorded a value of 51.62 with a standard deviation of 11.78 and a coefficient of variation of 22.82%.

**Distribution by area of origin of the patients**

Distribution by the predominance of rural origin showed a rural/urban ratio of 2:1, but with no significant difference statistically between the distribution of apparently primitive and secondary metastatic cases between the two environments.

**Distribution per risk factors**

Risk factors for secondary and apparently primitive metastatic adenopathies were represented by smoking (67.46%) and alcohol (57.53%). Other risk factors identified were: precancerous conditions (23.80%), exposure to occupational hazards (15.87%) and others (5.95%). Reported to data in the literature, other authors describe greater or lesser percentages in the tobacco-alcohol relationship, but most show a high frequency of their exposure to occupational hazards and for other factors involved in the pathogenesis of ENT neoplasms accompanied by metastatic lymph nodes.

**Distribution according to clinical stage of evolution**

Clinical staging showed for secondary metastatic adenopathy that 17.54% of cases were diagnosed and staged during the 3rd clinical stage and 82.46% in the 4th clinical stage, and for apparently primitive adenopathies, we identified 20.83% during the 3rd stage III and 79.17% during the 4th stage. Secondary metastatic adenopathies were classified as N2 (52.29%), N1 (33.11%) and N3 with a percentage of 15.60% of cases. For apparently primitive metastatic adenopathies we found the same predominance of category N2 at a rate of 45.83%, 29.17% of cases in N3 and N1 at a rate of 25% of cases. We found a significant difference in percentage distribution of apparently primitive and secondary adenopathies regarding their dimensions.

**2. RESULTS AND DISCUSSIONS ON THE THERAPEUTIC STUDY**

For the 228 (90.48%) patients who had secondary cervical lymph nodes metastasis, 109 (47.81%) patients underwent surgery followed by oncology treatment and for 119 (52.19%) patients we could not perform the nodal neck dissection and removal of the primary tumor within oncological limits, as the cases were in too advanced stages of the disease and did not allow surgery; patients benefited only from oncology treatment (Graph4).

For 24 patients with apparently primitive metastatic lymph nodes there was performed surgical treatment (NDS) and oncology treatment (100%). Treatment of choice in metastatic adenopathies was the nodal neck dissection with excision of the primary tumor followed by cancer treatment. For apparently primitive metastasis adenopathies we performed selective neck dissection (100%). In the cases of secondary metastatic adenopathies there was performed: either extended neck dissection (54.13%) or selective neck dissection (28.44%). In other cases patients underwent radical modified neck dissection (11.92%) and radical neck dissection (5.50%).
Treatment of choice in metastatic adenopathies was the nodal neck dissection with excision of the primary tumor followed by cancer treatment. For apparently primitive metastasis adenopathies we performed selective neck dissection (100%). In the cases of secondary metastatic adenopathies there was performed: either extended neck dissection (54.13%) or selective neck dissection (28.44%). In other cases patients underwent radical modified neck dissection (11.92%) and radical neck dissection (5.50%).

**TREATMENT OF SECONDARY METASTATIC ADENOPATHIES OF THE LARYNX NEOPLASM**

For the 83 patients (36.40%) diagnosed with laryngeal cancer and secondary metastatic lymph nodes, on 66 (60.55%) of the cases there was performed a neck dissection with removal of lymph nodes concomitant with the primary tumor, then, after surgery being guided per primam to oncology service for radiochemotherapy treatment. Being in advanced stages of the disease and outside surgical reserves, 17 patients (14.28%) received only cancer treatments.

There were performed the following the nodal neck dissections: three (4.55%) radical neck dissection (RND), 8 (12.12%) modified radical neck dissection (MRND), 51 (77.27%) extensive throat dissection (END), 4 (6.06%) selective neck dissection (SND).

The trend of the last decades is to abandon the radical neck node dissection and to implement a selective neck node dissection, respectively the jugular territory dissection (extensive dissection of the neck) to address nodal stations II, III and IV, this trend being found also in the study herein with a number of 51 (77.27%), extensive dissections of the neck, compared with 3 (4.55%) radical neck dissections.

**TREATMENT OF SECONDARY METASTATIC ADENOPATHIES OF THE PHARYNGOLARYNGEAL NEOPLASM**

For the 61 patients (26.75%) diagnosed with pharyngolaryngeal cancer and secondary metastatic lymph nodes, in 12 (11%) cases there were performed node dissections with concomitant removal of the primary tumor, the patients being then guided after surgical healing to the oncology service for chemoradiotherapy treatment. Oncology treatment was received only by 49 patients (41.17%). Types of nodal neck dissections were performed as follows: 3 (25%), 2 (16.67%) MRND, 7 (58.33%) END.
TREATMENT OF SECONDARY METASTATIC ADENOPATHIES OF HYPOPHARYNX NEOPLASM

There were diagnosed 18 (7.89%) neoplasms of the hypopharynx accompanied by secondary metastatic lymph nodes, the primary tumor being located on the posterior and lateral wall of the pyriform sinus, for which surgical excision was not possible because the tumor the reconstruction of the pharynx was not possible and for oncological reasons the patients did not undergo neck node dissection, they only benefited from cancer treatment.

TREATMENT OF SECONDARY METASTATIC ADENOPATHIES OF ORO-HYPOPHARINGEAL NEOPLASM

The two (0.88%) cases of oro-hypopharingeal neoplasms that were accompanied by the secondary metastatic adenopathies received primary tumor excision and concomitant neck node dissection. Types of nodal neck dissection that were performed: 1 (50%) MRND, 1 (50%) END.

TREATMENT OF SECONDARY ADENOPATHIES OF THE AURICULAR MALIGNANT MELANOMA

In 2004, we met only one case (0.43%) of malignant melanoma with ear cartilage invasion and secondary metastatic lymphadenopathy; the histopathology diagnosis of the acroma melanoma with a Clark V lelev of invasion and Breslow index 2, 4th stage. Right auricular pavilion underwent amputation, neck dissection and grafting node. The peculiarity of this case was that he returned in 2006 with relapse, jugular-carotid adenopathy located at the level of the upper - internal jugular chain, with right spinal. The patient underwent node neck dissection. The type of neck node dissection performed in 2004 and in 2006 was an MRND.

TREATMENT OF SECONDARY METASTATIC ADENOPATHIES OF NASOPHARYNX NEOPLASM

For 10 patients (9.17%) diagnosed with cavum cancer and secondary metastatic adenopathy there was performed a palliative neck dissection followed by chemoradiotherapy. A total of 11 (9.24%) patients received only canc er treatments. Types of nodal neck dissection performed: 1 (10%) MRND, 9 (90%) NDS. Surgery may be considered only in very small and circumscribed nasopharynx tumors, and only if no extension is proven on the tubal region in the skull. This is performed by electrocoagulation. Postoperatively apply mandatory radiotherapy.

TREATMENT OF SECONDARY METASTATIC ADENOPATHIES OF ORO-PHARYNX NEOPLASM

If the 42 (18.42%) of patients with oropharyngeal cancer and secondary metastatic lymph nodes, in 18 (16.21%) cases there were performed NDS with concomitant removal of the primary tumor, the patients being guided after surgical healing to the oncology service. Oncology treatment was received only by 24 (20.16%) patients.

3. RESULTS AND DISCUSSION ON THE HISTOLOGICAL AND IMMUNOHISTOCHEMISTRY STUDY

Distribution according to primary tumor histology

The histopathological examination of primary tumor showed predominant squamous cell carcinoma (91.23%), poorly differentiated (59.62%).

Distribution according to histological type of removed lymph

Distribution according to histological subtype of nodes removed was: squamous cell carcinoma metastases (84.40%) of which most often there was poorly differentiated a
squamous cell carcinoma (51.09%), and undifferentiated (18.48%), moderate difference (16.30%) and well differentiated (14.13%), undifferentiated carcinoma lymphoepithelial (8.26%) adenosquamous carcinoma (2.75%) basaloid carcinoma (1.83%) and one case of malignant melanoma (0.92%).

**Secondary lymph node metastases**

Microscopically, in 13 (14.13%) cases the metastases were massive and belonged to well-differentiated squamous carcinomas, 15 (16.30%) cases were of moderately differentiated squamous cell carcinomas, 47 (51.09%) cases of metastatic carcinoma poorly differentiated, 17 (18.48%) cases of squamous cell carcinoma lymph node metastases of undifferentiated carcinoma lymphoepithelial adenocarcinoma (2.75%) basaloid carcinoma (1.83%) and one case of malignant melanoma (0.92%).

The presence of epithelial tumor cells was seen using immunohistochemical staining with the use of both cytokeratin cocktails (AE1/AE3) and (34beta E12).

Adenopathies of the head and neck carcinoma, except for these squamous, that dominated the histological picture of cervical lymph nodes, are rare with a diverse histopathology: 3 (2.75%) cases of carcinomas adenosquamous, 2 (1.83%) basaloid carcinoma cases, 9 (8.26%) cases of undifferentiated lymphoepithelial carcinomas.

In these cases of undifferentiated carcinoma metastases, there were performed in 5 cases immunohistochemical tests for detecting EBV. The IHC aspect showed in 3 cases an EBV positivity in tumor cells, but all cases showed nuclear positivity in rare lymphocyte for the same marker.

Undifferentiated carcinoma incidence over five years shows a trend of increases and decreases wave, which may overlap with the epidemiological variations of the Epstein-Barr virus, known to be involved in the etiology of these histological types of tumors.

Cervical metastasis of malignant melanoma was met in one case. Histologically the tumor was characterized by a proliferation of tumor cells with predominant epithelioid pattern, with foci of necrosis and the absence of the melanin pigment. The immunohistochemical examination put in the expression for HMB45, S100 and vimentin presence of tumor cells.

**Lymph node metastases with unknown primary origin**

Unknown primitive carcinoma (CUP) are defined histologically as the presence of metastases without primary tumor detection. Because the disease is not included in the International Classification of Diseases (ICD), it is difficult to compare different data from the literature. However, approximately 3-15% of all cancers are classified as CUP.

Diagnosis, treatment and monitoring patients with metastatic lateral-cervical of unknown primary origin involve a wide range of oncological entities. Therefore, patients with CUP must have an appropriate sequence of the primitive tumor.

Our study comprised 24 cases of CUP, constituting the 9.52% of metastatic adenopathy for a period of five years. They had an increased incidence in the age group 51-60 years (33.33%), affecting predominantly males (70.83%). As the topography of lesions, we found a predominance of the jugular-carotid in 16 cases (66.67%). In the studied cases for the 24 lymph
node metastases with apparently primitive origin after clinical investigation, laboratory, histopathological and immunohistochemical investigation, there were identified the locations of the primitive tumor (Table 1).

Table 1. Location of the primitive tumor accompanied by apparently primitive metastatic lymph nodes

<table>
<thead>
<tr>
<th>Location of the primitive tumor</th>
<th>Number of patients</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Submaxillary gland</td>
<td>1</td>
<td>4,16%</td>
</tr>
<tr>
<td>Parotid gland</td>
<td>1</td>
<td>4,16%</td>
</tr>
<tr>
<td>Thyroid gland</td>
<td>1</td>
<td>4,16%</td>
</tr>
<tr>
<td>Lungs</td>
<td>2</td>
<td>8,33%</td>
</tr>
<tr>
<td>Digestive (esophagus)</td>
<td>2</td>
<td>8,33%</td>
</tr>
<tr>
<td>Cavum (nasopharynx)</td>
<td>9</td>
<td>37,5%</td>
</tr>
<tr>
<td>Oro-pharynx</td>
<td>6</td>
<td>25%</td>
</tr>
<tr>
<td>Hypopharynx</td>
<td>1</td>
<td>4,16%</td>
</tr>
<tr>
<td>Larynx</td>
<td>1</td>
<td>4,16%</td>
</tr>
<tr>
<td>Total</td>
<td>24</td>
<td>100%</td>
</tr>
</tbody>
</table>

► Lymph node metastases with starting point in primitive parotid and submaxillary gland tumor

Lymph node metastases with a starting point parotid and submaxillary primitive tumor was present in 4.16% of the cases analyzed. Histological types of metastasis found in these cases were adenocarcinoma (submaxillary gland) and adenoid cystic carcinoma (parotid gland). Tumor cells expressed CK7 and CK20 citokeratinele CK5 and CK6 was negative.

► Lymph node metastases with starting point primitive thyroid tumor

Lymph node metastases with a starting point primitive thyroid tumor were present in 4.16% of the cases analyzed, which corresponded to a papillary thyroid carcinoma confirmed by histological and immunohistochemical positivity for CK19 and HBME1.

► Lymph node metastases with starting point in primitive lung tumor

Lymph node metastases with starting point in a primitive lung tumor were present in 8.33% of the cases analyzed. Histological structure was noted following: an adenocarcinoma and large cell lung carcinoma with squamous differentiation.

In our study we used an algorithm consisting of TTF1 (positive in adenocarcinomas and squamous carcinomas negative), CK7 (positive in adenocarcinomas and squamous carcinomas negative), AE1/AE3 (negative in adenocarcinoma and squamous carcinomas positive) and 34betaE12 (positive diffuse in squamous carcinomas).

► Lymph node metastases with starting point primitive oesophageal tumor

Lymph node metastases with the starting point in a primitive oesophageal tumor that we met were in other 8.33% of the cases. Lymph node metastasis of esophageal cancer were represented by a poorly differentiated squamous cell carcinoma and poorly differentiated adenocarcinoma.
From the immunohistochemical perspective, squamous cell carcinoma and esophageal adenocarcinoma were positive for citokeratine cocktail AE1/AE3+/34betaE12+ and CK7/CK20 positive.

- **Lymph node metastases with starting point primitive tumor (nasopharynx, oropharynx, hypopharynx, larynx)**

  Lymph node metastases with the starting point in a primitive ENT tumor respectively localized in the nasopharynx, oropharynx, hypopharynx and larynx were diagnosed in 17 (70.82%) cases, as follows: 9 (52.94%) cases nasopharynx (7 carcinomas poorly differentiated carcinomas and 2 undifferentiated carcinomas), 6 (35.29%) cases oropharynx (5 poorly differentiated squamous cell carcinomas and 1 undifferentiated carcinoma), 1 (5.88%) case hypopharynx (poorly differentiated squamous cell carcinoma) and 1 (5, 88%) cases larynx (moderately differentiated squamous cell carcinoma). All tumors were immunohistochemically positive for AE1/AE3 and 34betaE12.

**IV. CONCLUSIONS**

1. Impairment of metastatic lymph nodes includes a comprehensive pathology requiring rigorous examination, clinical, laboratory, histological and immunohistochemical effective therapeutic management.

2. Algorithm evaluation of a patient with lymphadenopathy, involves several steps: medical history, clinical examination of neck, ENT entities examination, essential and mandatory in any cervical lymphadenopathy, additional tests, radiological, fibro-panendoscopy, imaging investigations. For a positive diagnosis is made to: puncture node, node biopsy, neck dissection followed by histopathological examination which is sovereign in providing diagnostic certainty. He directs the company surgery, radiotherapy, chemotherapy.

3. In the metastatic cervical adenopathies the secondary adenopathies prevalence (90.48%) compared with the apparently primitive adenopathies was evident (9.52%).

4. Neoplastic location in the ENT organs accopmanied by lymph nodes belonged to the larynx (36.40%), oro-pharynx (18.42%), nasopharynx (9.21%), hypopharynx (7.89%). Metastatic adenopathy had apparently primitive point: nasopharynx (37.50%), oro-pharynx (25%).

5. Tumor invaded lymph node station were the jugular-carotidones.

6. Gender distribution of study group showed an increased incidence of metastatic adenopathies for males (94.05%) than females (5.95%). Distribution by gender and type of metastatic lymphadenopathy showed that women are roughly equal proportions in secondary adenopathies (53.33%) with the apparently primitive metastatic adenopathies (46.67%), while in men the ratio is ~ 13:1 in for secondary metastatic adenopathies (92.83%) to the apparently primitive ones (7.17%).
7. Average age of patients with metastatic lymph nodes secondary was 59.15 with a standard deviation of 9.84 and a coefficient of variation of 16.64%. In the case of apparently primitive metastatic adenopathies, there was an average age of 51.62 value with a standard deviation of 11.78 and a coefficient of variation of 22.82%.

9. Risk factors for secondary and apparently primitive metastatic adenopathies were represented by smoking (67.46%) and alcohol (57.53%). Other risk factors identified were: precancerous conditions (23.80%), exposure to occupational hazards (15.87%) and others (5.95%).

10. Clinical staging showed secondary metastatic adenopathies of 17.54% of cases that were diagnosed and staged in the 3rd clinical stage and 82.46% in the 4th clinical stage, and for apparently primitive adenopathies we identified 20.83% in the 3rd stage and 79.17 % in the 4th stage.

11. Secondary metastatic adenopathies were classified as N2 (52.29%), the N1 (33.11%) and N3 a percentage of 15.60% of cases. For apparently primitive metastatic adenopathies we found the same predominance of category N2 at a rate of 45.83%, 29.17% of cases in the N3 and N1 at a rate of 25% of cases. We found a significant difference in percentage distribution of apparently primitive and secondary adenopathies dimensions.

12. Histopathological examination of primary tumor showed predominant squamous cell carcinoma (91.23%) poorly differentiated (59.62%).

13. Distribution according to histological subtype of nodes removed was: squamous cell carcinoma (84.40%) most frequently being poorly differentiated squamous cell carcinoma (43.12%).

14. Cytokeratin of types (AE1/AE3) and (34 beta E12) are found in highly positive expression showed the presence of epithelial tumor cells for secondary lymph node metastasis. In cases of undifferentiated lymphoepithelial squamous carcinomas, the immunomarking 33.33% of the cases showed positivity for EBV in tumor cells, but all cases showed rare lymphocytes and nuclear positivity for the same marker. Immunohistochemical examination put in the expression for HMB45, S100 and vimentin presence of tumor cells in cervical metastasis of malignant melanoma.

15. Initial histopathological interpretation provides valuable information in the seat to be filled with tumor and immunohistochemical test results. A large panel of antibodies directed to tumor primitive and included CK7, CK19, CK20, AE1/AE3, 34betaE12, TTF1, HBME1 and EBV. Cytokeratin of types 34betaE12 AE1/AE3 and intense expression found in 70.82% of positive lymph node metastases of squamous cell carcinoma apparently primitive with the primary tumor nasopharynx, oro-pharynx, hypopharynx, larynx.
16. Treatment of choice in metastatic adenopathies was the nodal neck dissection with excision of the primary tumor followed by cancer treatment. In the case of secondary metastatic adenopathies was performed: either extended neck dissection (54.13%) or selective neck dissection (28.44%). In other cases underwent radical neck dissection as amended (11.92%) and radical neck dissection (5.50%). For apparently primitive adenopathy of the node metastasis we performed selective neck dissection (100%).

17. The current trend is to abandon the radical neck dissection node and to practice a selective neck dissection node, since node radical neck dissection avoidance is followed by a high percentage of morbidity represented by postoperative complications early and remote, this trend being found in this study to make up for a total of 90 neck dissections conservative compared to 13 modified radical dissections and 6 radical neck dissection.

V. SELECTIVE BIBLIOGRAPHY


