1. **Significance of post-resection tissue shrinkage on surgical margins of oral squamous cell carcinoma.**

Hossam Abdelkader El-Fol a, Samer Abduljabar Noman b, *c, Mohamed Galal Beheiri c, Abdalla M. Khalil d, Mahmoud Mohamed Kamel e

**Background:** Resecting oral squamous cell carcinoma (SCC) with an appropriate margin of uninvolved tissue is critical in preventing local recurrence and in making decisions regarding postoperative radiation therapy. This task can be difficult due to the discrepancy between margins measured intraoperatively and those measured microscopically by the pathologist after specimen processing.

**Material and methods:** A total of 61 patients underwent resective surgery with curative intent for primary oral SCC were included in this study. All patients underwent resection of the tumor with a measured 1-cm margin. Specimens were then submitted for processing and reviewing, and histopathologic margins were measured. The closest histopathologic margin was compared with the in situ margin (1 cm) to determine the percentage discrepancy.

**Results:** The mean discrepancy between the in situ margins and the histopathological margins of all close and positive margins were 47.6% for the buccal mucosa (with a P value corresponding to 0.05 equaling 2.1), which is statistically significant, 4.8% for the floor of mouth, 9.5% for the mandibular alveolus, 4.8% for the retromolar trigon, and 33.3% for the tongue.

**Conclusion:** There is a significant difference among resection margins based on tumor anatomical location. Margins shrinkage after resection and processing should be considered at the time of the initial resection. Tumors located in the buccal mucosa show significantly greater discrepancies than tumors at other sites. These findings suggest that it is critical to consider the oral site when outlining margins to ensure adequacy of resection. Buccal SCC is an aggressive disease, and should be considered as an aggressive subsite within the oral cavity, requiring a radical and aggressive resective approach.


2. **Comparison of the effect of total conservative parotidectomy versus superficial parotidectomy in management of benign parotid gland tumor: A systematic review**

Hosam Abd El-kader El Fol a, Mohamed Jalal Beheiri b, Waleed AL Zaqri b, *

**Purpose:** Since the 1940s, there has been wide controversy about the most effective surgical treatment for the primary benign parotid tumor. This review investigates the effectiveness and associated complications of superficial parotidectomy versus total conservative parotidectomy in the
management of primary benign parotid tumors. 
Material and methods: An electronic search with restricted dates (1920e2014) and restricted language was performed in August 2014. Thirteen studies were included. In total, 2477 patients were enrolled in the 13 studies, with 1317 patients undergoing superficial parotidectomy and 391 patients undergoing total conservative parotidectomy; 769 patients treated with other surgical techniques were excluded. The maximum follow-up period varied between 2 and 24 years (mean 2.8 years).
Results: The incidence of recurrence in the superficial parotidectomy patients ranged from 0% to 15% (mean 5.7%), whereas, in the total conservative parotidectomy patients it ranged from 0% to 16% (mean 3.03%). The incidence of the facial nerve paresis according to collected data in the superficial parotidectomy group ranged from 0% to 23% (mean 6.75%), whereas in the total conservative parotidectomy group it was 0%e45% (mean 15%). The incidence of facial nerve paralysis in the superficial parotidectomy group ranged from 0% to 3% (mean 0.8%), whereas in the total conservative parotidectomy group it was 0%e17% (mean 4.4%).
Conclusion: The results of this review suggest that superficial parotidectomy is superior to total conservative parotidectomy in the management of primary benign tumor in superficial lobes. In addition, superficial parotidectomy showed a minimal recurrence rate for benign tumor in superficial lobes.


Ehab Mohamed Eissa, MD.1, Hossam Abdelkader El-Fol, MD.2
Neurosurgery department, Faculty of Medicine, Cairo University,1 Surgical oncology department, Faculty of Medicine, Menofia University,2 Egypt.

Background Data: Cervical spine nerve sheath tumors (SNTSs) represent a special location of interest and challenge for neurosurgeons because the lesion in this region tend more to have extradural and extraspinal component (dumb-bell tumors) than dorsal or lumbar region. These tumors extension is most likely because of short intradural root in the cervical region. Dumb-bell tumors require special surgical strategy and approaches to allow complete removal of these tumors from both intraspinal and extraspinal components without traction on the spinal cord.

Purpose: to evaluate our experience in management of cervical spinal nerve sheath tumors with special consideration for dumb-bell tumors that operated by multidisciplinary team and discussing our result.

Study Design: A prospective descriptive clinical case study.
**Patients and Methods:** This was a prospective study including nine patients suffering from cervical spinal nerve sheath tumors who were treated from January 2006 to December 2012. Each case was analyzed according to sex, age, clinical presentation, magnetic resonance imaging (MRI) of the brain and whole spine, surgical intervention, pathology and outcomes. The patients were followed in our outpatient clinic, where they were assessed clinically and functionally by VAS score and JOA score as well as radiologically by MRI of the cervical spine.

**Results:** There were nine cases in this study with cervical SNTSs with age ranged from 30 to 56 years in eight cases with one case reported at 6 years. There were 5 females and 4 males. Five cases in this study (56%) were dumb-bell tumors and four cases were only intraspinal. All dumb-bell tumors were operated by combined posterior and anterior approach at the same session. Six cases (67%) were schwannoma, two cases (22%) were neurofibromas and one case was malignant nerve sheath tumor. The results were generally good. 80% of patients with preoperative pain (78%) had moderate to complete pain relief. All cases with preoperative cord related motor deficit (56%) had improvement to satisfying degree.

**Conclusion:** SNTSs are uncommon lesions and tend to have extradural component in the cervical region. Proper clinical and radiological evaluation should be performed to exclude Neurofibromatosis 1 or 2 with associated spinal and/or intracranial tumors. Multidisciplinary team management provides optimum result for removal of dumb-bell tumors but the posterior approach should be performed first to prevent neurological manipulation. The incidence for recurrence and reoperation of small residual tumor are generally low.

4. **Clinical Outcome after Extended Lymphadenectomy for Gastric Cancer**  
Hossam Abdelkader¹, MD; Haitham Elmaleh², MRCS, MD; Rabbah Abdellateef², MD; Ismael Morad³, MD  
¹: Department of General surgery, Menofia University, Menofia, Egypt.  
²: Department of General surgery, Ain Shams University, Cairo, Egypt.  
³: Department of Surgical oncology, National Cancer Institute, Cairo, Egypt.  

**Background & Objectives:** Although gastric cancer is one of the most common causes of cancer-related death, its prognosis remains poor. Surgical resection with lymph node dissection is the only potentially curative therapy for gastric cancer. However, the appropriate extent of lymph node dissection remains controversial. In East Asian countries, D2 lymph node dissection has been performed as a standard procedure. In western countries, D2 dissection was associated with higher mortality and morbidity with no 5-year survival benefit compared to D1 dissection. More recent studies have demonstrated that western surgeons can be trained to perform D2 lymphadenectomies on achieving survival benefits comparable to those of reported in eastern countries. The aim of our study is to evaluate the feasibility, safety and outcome of extended (D2) lymphadenectomy for gastric cancer.  

**Methods:** Between October 2010 and October 2014, patients with gastric cancer in whom surgical resection was indicated were prospectively included in this study. Enrolled patients underwent gastrectomy with D2 lymphadenectomy. The patients were followed up regularly after the operation. Postoperative
parameters, disease-specific mortality & Kaplan-Meier survival analysis were used to assess the outcomes.

**Results:** 62 patients were included in the study. 33 patients had distal gastrectomy and 29 patients had total gastrectomy. 5 (8.1%) patients had postoperative complications with no perioperative mortality recorded. The overall mean survival time was 17.13 ± 9.6 months and the disease free mean survival time was 13.4 ± 9.39 months. Kaplan-Meier survival analysis showed that the overall survival probability estimate in the study to be 100% at 1 year, 88.7% at 2 years, 58.1% at 3 years and 32.3% at 4 years. Nodal disease class & N stage were found to have a statistically significant effect on survival.

**Conclusion:** D2 lymphadenectomy can be performed safely in well-equipped hospitals by experienced surgeons with acceptable morbidity & mortality. It can provide better survival for patients with gastric cancer and low degree of lymph node metastases (N1 or N0).

5. Evaluation of Jejunal Interposition Reconstruction after Gastrectomy for Gastric Cancer

Hossam Abdelkader Elfol¹, MD; Haitham Elmaleh², MRCS, MD; Rabbah Abdellateef³, MD

¹: Department of General surgery, Menofia University, Menofia, Egypt.
²: Department of General surgery, Ain Shams University, Cairo, Egypt.

**Background & Objectives:** The subject of which type of reconstruction should be applied after gastrostomy has long remained controversial. Many reconstruction techniques have been applied after gastrectomy, with Roux-en-Y reconstruction being the most widely used procedure currently, as it can be relatively easily performed and the incidence of postoperative complications after it is low. However, it has not been fully accepted due to the poor quality of life caused by insufficient food intake, anemia, weight loss and malabsorption resulting after it. Jejunal interposition reconstruction preserves the duodenal passage of food, stimulates the secretion of bile and pancreatic juice, which is then fully mixed with chyme, which might improve the postoperative food intake & digestion. However, the complexity of the procedure and longer operative time would increase the risk of the intraoperative and postoperative complications. This study aims to evaluate jejunal interposition as a standard technique for reconstruction after gastrectomy regarding its feasibility, benefits and disadvantages.

**Patients and Methods:** Between March 2011 and March 2015, patients with gastric cancer in whom surgical resection was indicated, were prospectively included in this study. Enrolled patients underwent gastrectomy, D2 lymphadenectomy with jejunal interposition. The patients were followed up for 1 year after the operation. Operative, postoperative parameters & outcome measures were used to assess the results of the technique.

**Results:** 16 patients were included in the study. 10 patients had subtotal gastrectomy and 6 had total gastrectomy. The mean operative time was 266.2±
29.4 minutes. 5 (31.3%) patients had postoperative complications with 1 case of postoperative mortality recorded. Patients started to show weight regain after 3 months of subtotal gastrectomy, and 9 months of total gastrectomy. The rate of reflux esophagitis was low (12.5%), and no cases of dumping syndrome detected in the study. Post-operative serum hemoglobin levels tended to decrease in the first month reaching a plateau within 3 months and started to increase gradually after that.

**Conclusion:** Jejunal interposition reconstruction after gastrectomy is a safe and feasible treatment option. It may provide better functional and nutritional results than Roux-en-Y reconstruction, making it a superior alternative in early gastric cancer patients who are expected to be long-term survivors.

6. **Fertility preservation after surgical transposition of the ovaries for pelvic tumors**
Mohamed Mahmoud1, Hossam Abd Elkader Elfol2
1 Radiation Oncology Department, NCI, Cairo, Egypt
2 Surgical Oncology Department, Menoufia University, Shibin El Kom, Egypt

**Objective:** The aim of the study was to assess the hormonal profile level in females with pelvic tumors after surgical transposition of the ovaries during surgery followed by postoperative radiotherapy to the pelvis. **Methods:** Fifteen patients with rectal, bladder and cervical cancer were included in the study with their age ranged between 25 and 40 years old. 7 patients with cancer rectum, 3 patients with bladder cancer and 5 had cancer cervix. Ovarian transposition was done for patients during surgery followed by external beam radiotherapy to the pelvis, hormonal assessment was done for the patients before and after exposure to radiation. **Results:** No intra-operative or post-operative morbidity was observed in patients treated by laparotomy. Patients were found to have regular menstrual cycles. Their FSH, LH and progesterone levels were within normal ranges. **Conclusion:** Proper transposition of ovaries during laparotomy away from the radiation field can preserve the ovarian function in patients with pelvic tumors.

7. **Strategy of Reconstruction of Complex Midline Abdominal Wall Defects**
Short running head: Complex Abdominal Defect Reconstruction
Samir M. H. Kohla (MD)1, Mohammed Leithy Badr (MD)1, Hossam Abd El-Kader Ahmed (MD)1 and Hamed Abd El Azez El Sayed (MS)2.
1. Surgery department, Faculty of Medicine, Menoufia University,
Egypt.
2. Kafr el Dwar general hospital, Behaira, Egypt.

Objective: The aim of this work is to evaluate the outcome of different methods of reconstruction of difficult types of abdominal wall defects.

Background: Complex abdominal defect is a defect which defies primary anatomical repair without tension and may be due to gross tissue loss, multiple previous procedures or sepsis.

Methods: This is a prospective study on fifty two patients with complex anterior abdominal wall defects. According to the presentation, patients were divided into two unequal groups; group one having an open defect including thirty four patients, and group two having a covered defect (incisional hernia) including eighteen patients. All studied patients were subjected to history taking, clinical examination and routine investigations and were managed by either of three techniques for closure and reconstruction of the defect; components separation, mesh repair or shoelace darn repair, primarily or after repeated temporal closure using the vacuum-assisted closure technique, according to the presentation of the defect.

Results: Our patients were 28 males and 24 females with age ranging from 19 to 67. Males dominated in the group with open defects while females were dominant among those with covered defects. Etiology of open defects included abdominal trauma, wound dehiscence after abdominal operations, infection of recent laparotomy and following excision of abdominal wall tumors, also some cases presented during preparation for a second exploration in emergency situations. In open defect cases, temporal vacuum-assisted closure was tried as a bridge therapy for definitive closure, with mortality of six cases (17.6%). In the remaining twenty eight patients, early primary closure was possible in only five patients, delayed primary closure could be done in another ten cases, while in the remaining thirteen cases, creation of ventral hernia with a remote secondary repair was done. Three methods were utilized for final reconstruction of the remaining thirteen cases and also in the eighteen cases...
presented with covered defect; components separation technique, prosthetic mesh repair and shoelace darn repair.

**Conclusion**: The management of open abdomens is an evolving concept. Temporal abdominal closure protects the intra abdominal contents, facilitates primary closure and minimizes complications and the need for secondary repairs of ventral hernias. We concluded a plan for management of complex midline abdominal wall defects.

8. Pattern and Distribution of Lymph Node Metastases in Papillary Thyroid Cancer

**Pattern and Distribution of Lymph Node Metastases in Papillary Thyroid Cancer**

Hossam A El-Foll,1 Hesham I El-Sebaey,2 Ahmad F El-Kased,1 Ali Hendawy3 and Mahmoud M Kamel1*

1Department of Surgical Oncology, Faculty of Medicine, Menofia University, Egypt
2Department of Surgical Oncology, National Cancer Institute, Cairo University, Egypt
3Department of Surgical Pathology, Faculty of Medicine, Cairo University, Egypt
4Department of Clinical Pathology, National Cancer Institute, Cairo University, Egypt

**Background**: The indications and extent of lymph node dissection in the treatment of papillary thyroid carcinoma remains controversial, and benefit from therapy is debatable. This study was designed to identify the pattern and distribution of lymph node metastases and to establish an optimal strategy for neck dissection for those patients.

**Methods**: A total of 44 patients diagnosed with papillary thyroid cancer were treated from 2006 to 2013. All patients underwent total thyroidectomy, central neck dissection, and ipsilateral selective neck dissection removing lymphatic structures in levels II through V. The frequency of cervical lymph node metastases in each level, and the presence of capsular invasion were analysed. In addition, we investigated postoperative complications after total thyroidectomy and central lymph node dissection.

**Results**: Lymph node metastases were found in 18 patients (40.9%); all of them had ipsilateral level VI nodal involvement. 7 patients had level V involvement, 2 patients had level II affection, 3 patients had level III & IV affection and 2 patients had contralateral level VI lymph node affection. We also found extracapsular invasion in 6 (13.6%) patients and grade I, II, III in 2, 40, 2 patients respectively. The frequency of temporary hypocalcaemia, permanent hypocalcaemia and temporary vocal cord paralysis were 6.8%, 2.3% and 4.5%, respectively.

**Conclusion**: We recommend total thyroidectomy and central compartment lymph node dissection. If ipsilateral...
central lymph nodes are positive for metastases in frozen section, we proceed to ipsilateral selective neck dissection removing lymphatic structures in levels II through V even in the absence of clinically evident lymph node metastasis irrespective of tumor size. The technique had a low rate of complications; namely laryngeal nerve injury and hypoparathyroidism.


Hossam Abdel Kader El Fol, MD¹; Ashraf M. Balbaa, MD²; Ahmed Farag El-kased, MD¹; Hassan Abdallah, MD³; Abdallah Khalil, MD⁴; Mohamed Mahmoud, MD⁵; Amira D. Darwish, MD⁶
¹Department of Surgery, Menofia University;
²Department of Surgery, Ain-Shams University;
³Department of Surgery, National Cancer Institute (NCI), Cairo University;
⁴Department of Pathology, Cairo University;
⁵Department of Radiation Oncology, NCI, Cairo University, EGYPT,
⁶Department of Medical Oncology, NCI, Cairo University

Purpose:
To determine the feasibility and accuracy of sentinel lymph node biopsy detection for patients with advanced breast cancer after preoperative chemotherapy.

Patients and methods:
A prospective study was conducted on 73 patients with advanced operable breast carcinoma previously treated with preoperative chemotherapy, then Sentinel lymph node mapping was performed at time of surgery, following surgery all patients received comprehensive post-operative radiotherapy 50 Gy/5 weeks.

Results:
From May 2006 to May 2013, 73 patients with median age were 52 years previously treated with preoperative chemotherapy at Menofia university hospital and National Cancer Institute (NCI).
The SLN detection rate was 79.5%. 33 patients of 58 patients (56.9%) had successfully mapped, positive SLNs. False negative rate 22.4%.

Conclusion:
This study confirms the feasibility of SLN biopsy after preoperative chemotherapy in the case of advanced operable breast cancer. According to detection rate and false negative rate SLN biopsy may predict metastatic disease in axilla of patients with tumor response following preoperative chemotherapy.

10. Ultrasound Directed Minimally Invasive Incision for Parathyroidectomy
of the Parathyroid Adenoma  (An initial experience)

Hosam Abd El-Kader El-Fol, M.D 1, Iman Gouda, M.D 2, Reda Tabashy, M.D 3, Mahmoud M. Kamel, M.D 4

Author Affiliation:
1 Department of Surgical Oncology, Faculty of Medicine, Menofia University, Egypt
2 Department of Surgical Pathology, National Cancer Institute, Cairo University, Egypt
3 Department of Radiology, National Cancer Institute, Cairo University, Egypt
4 Department of Clinical Pathology, National Cancer Institute, Cairo University, Egypt

BACKGROUND:
With the availability of the rapid parathyroid hormone (PTH) assay, the preferred surgical approach to parathyroidectomy is focused single-gland excision rather than bilateral exploration. Most surgeons perform 4-gland exploration only in cases of hyperplasia, secondary hyperparathyroidism, or tertiary hyperparathyroidism. In those who have positive preoperative localization, single-gland excision in conjunction with the rapid intraoperative PTH assay is efficacious, and the rate of recurrence is 0% to 5%. Furthermore, the procedure can be performed as an outpatient through a small incision.

AIM:
To describe the initial experience for the feasibility and outcome of minimal access parathyroidectomy using the focused lateral approach (FLA) under ultrasound guidance for excision of parathyroid adenoma.

MATERIALS AND METHODS:
We reviewed the record of 9 patients that underwent US guided FLA Parathyroidectomy between March 2006 and April 2013. The FLA was used when preoperative sestamibi scan or ultrasonography showed an adenoma located superiorly, posteriorly, or retroesophageally. Intraoperative rapid parathyroid hormone assay was used to confirm a single adenoma in all cases.

EXCLUSION CRITERIA:
Patients undergoing parathyroidectomy for secondary or tertiary hyperparathyroidism, or parathyroidectomy in conjunction with thyroidectomy, were excluded because more extensive surgical exploration was performed in such cases.

RESULTS:
Of 9 patients who underwent parathyroidectomy via FLA in this series, 4 (44.44%) were male and 5 (55.55%) were female. All patients had biochemically confirmed primary hyperparathyroidism with a single adenoma localized by imaging. In 4 patients (42.8%), the procedure was completed under intravenous sedation and local anesthesia and one procedure (11.11%) was converted to general anesthesia for bilateral exploration. 4 (42.8%) patients’ preferred general anesthesia. The time ranged between 62.9-62.8 minutes with mean operative time for FLA was 62.9 minutes. There were no major complications. One patient experienced transient vocal cord paresis. Another patient developed a small hematoma, which required no treatment and resolved.

CONCLUSIONS:
The FLA is a safe and effective procedure for excision of parathyroid glands that are located superiorly, posteriorly, or retroesophageally. Its major advantage is the ability to remove glands located deep and posterior through a small incision under intravenous sedation. Although there is a learning curve, the overall operative times for minimally invasive parathyroidectomy decreased after experience was gained.