CONCLUSIONS: The results suggest that causative diseases, time until surgery, and optic nerve atrophy were not predictive factors of the post-operative recovery of visual acuity, and that the aggressive selection of surgical treatment is important.

SP390 – The tumor origin of sinonasal inverted papilloma

Ta-Jen Lee, MD (presenter); Chi-Che Huang, MD; Po-Huang Chang, MD

OBJECTIVES: The objective of this study was to determine the characteristics of medially originated inverted papilloma (MOIP) and compare them with laterally originated inverted papilloma (LOIP).

METHODS: A retrospective review of the charts for a total of 83 patients with sinonasal inverted papilloma (IP) was conducted. Tumors originating from the nasal septum or the turbinates were categorized as MOIP, while tumors originating from the four sinuses were categorized as LOIP.

RESULTS: Twenty-eight (34%) and 55 (66%) cases were categorized as MOIP and LOIP. MOIP from the middle turbinate behaved more aggressively than LOIP from the ethmoid sinus ($p = 0.009$), but less aggressively than LOIP from the maxillary medial wall ($p < 0.05$). Radical procedures were implemented in 14 patients with LOIP, but not in any patients with MOIP ($p = 0.002$). The recurrences rates were comparable in both groups ($p = 0.472$).

CONCLUSIONS: The categorization of IP on the basis of tumor origin enabled a better surgical design and more accurate excision of the tumor. Although in some cases MOIP may behave more aggressively, radical procedures were only indicated in late Krouse stage LOIP without compromising the recurrence rate.

SP384 – Trace elements in nasal polyps

Erdogan Okur (presenter); Asiye Gul; Metin Kilinc; M. Akif Kilic, MD; Ilhami Yildirim; Fatma Inanc Tolun; Yalein AN

OBJECTIVES: The aim of our study is to evaluate the status of selenium and zinc in nasal polyp tissues and to investigate the possible role of trace elements and antioxidants including superoxide dismutase (SOD) and glutathione peroxidase (GSH-Px) in nasal polyps.

METHODS: In this study, the antioxidant enzyme and trace element levels measured in polyp tissues of 37 patients were compared with the levels measured in conchal mucosa of 27 control cases. The antioxidant enzyme and trace element levels in tissues were measured with graphite and flame spectrophotometry methods by using Shimatsu UV.1601 spectrophotometer and Perkin Elmer atomic spectrometer.

RESULTS: The mean tissue zinc and selenium levels were respectively 2.55 g/g and 30.03 pg/g in patient group; 4.37g/g and 44.95 pg/g in control group. The mean tissue SOD and GSH-Px levels were respectively 5.18 U/mg protein and 0.69 U/mg protein in patient group; 7.00 U/mg protein and 0.77 U/mg protein in control group. When the measured levels in patients and control cases were compared, there were statistically significant differences between zinc, selenium and SOD levels ($P=0.001$). There was no significant difference between GSH-Px levels ($P=0.465$).

CONCLUSIONS: It has been revealed that the levels of zinc, selenium and SOD in nasal polyps were significantly lower, and it may be concluded that this may have a role in the development of nasal polyps.

SP417 – Transantral balloon dilatation, plus

Yosef Krespi, MD (presenter); Michael Setzen, MD; Victor Kizhner, MD

OBJECTIVES: 1) Demonstrate value of balloon dilatation with sublabial dual pucture antrostomy for management of minimal maxillary and ethmoid disease, such as maxillary mucosal cysts (MMC), polyps, limited infections and adhesions around the ostiomeatal complex (OMC). 2) To achieve improved QOL with limited morbidity, using this approach. 3) To demonstrate that maxillary cysts localized around OMC, associated with sinonasal symptoms can be managed with minimally invasive procedures, contrary to recent literature.

METHODS: A prospective study treating patients with limited maxillary and ethmoid CRS was conducted in an ambulatory or office setting. Sublabial approach with two working channels (dual port), one for an endoscope and the other for balloon dilatation or other surgical instrumentation was created via mini-trephine aimed toward the OMC. Data collected included: demographics, SNOT scores, Lund-Mackay score, facial swelling and pain grading. Direct OMC culture and biopsy was obtained. Post operative intranasal endoscopic findings namely crusting, bleeding, scarring and synechia were recorded.

RESULTS: Twenty patients were enrolled. All QOL scores showed statistically significant improvement ($P < 0.05$)

CONCLUSIONS: Utilizing a sublabial transantral endoscopic approach for balloon dilatation with treatment of minor maxillary sinus disease, we achieved significant improvement in QOL. Direct visualization of the maxillary sinus via transantral approach without violating the middle turbinate is safe, effective and requires limited postoperative care. Although recent literature recommends not treating MMCs, we strongly believe that MMCs localized around OMC associated with sinonasal symptoms should be managed with minimally invasive procedures.

SP392 – Trans-antral balloon dilation under local anesthesia

James Stankiewicz, MD (presenter)