Abstracts for BACO Oral Presentations

NAPDENT Orals - Innovation in Training

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**Yadsan Devabalan**

**COVID-19: Changing the future of emergency epistaxis management**

**Background:** Acute epistaxis can be a life-threatening airway emergency. Therefore, the majority of patients in whom conservative management (including cautery) has failed are admitted. The COVID-19 pandemic placed significant strain on hospital resources, and our management has shifted towards a more outpatient centred approach in patients were deemed safe.

**Methods:** A single centre retrospective study was undertaken of all epistaxis patients managed by the ENT team over a five-month period from 1st January to 31st May 2020. In the first 10 weeks (Pre-COVID-19) patients were managed using pre-existing guidelines. In the following 10 weeks (COVID-19) the new COVID-19 standard operating procedures were used to minimise inpatient admissions. A telephone survey was performed on outpatients treated with non-dissolvable packs to assess patient comfort and satisfaction.

**Results:** 142 patients, with similar demographic data, were seen across the 5-month period. There were significantly more patients aged over 65 presenting in the COVID-19 group (p=0.04). There was a significantly increased use of local haemostatic agents (Nasopore® and Surgiflo®) and decreased use of nasal packing in the COVID-19 group. There were significantly fewer admissions (p<0.0005) in the COVID-19 group, but similar rates of representation, length of stay and morbidity. The telephone survey revealed patients found outpatient management both efficacious and feasible.

**Conclusions:** The COVID-19 pandemic has accelerated the shift towards the use of local haemostatic agents and outpatient management of epistaxis, which is as safe and effective as previously well-established epistaxis management.
Covid-19 has presented new challenges to the diagnosis and treatment of voice disorders

Background: Covid-19 has presented new challenges to the diagnosis and treatment of voice disorders. Whilst ENT UK guidance reserves in-person appointments with flexible nasendoscopy (FNE) for those deemed high risk, how can we best treat the majority of dysphonic patients who have no red flags, whilst reducing FNE use, in a timely manner? Multiple studies suggest an equivalence between teleconferencing technology and face to face consultations for voice disorders - can this translate to our service?

Methods: 10 Speech and Language Therapists (SALT) were played audio recordings of 10 patients with voice disorders, with and without a detailed history. Accuracy of diagnosis and reliability of GRBAS scores were observed.

Results: Certain diagnoses were easier to identify than others, e.g., spasmodic dysphonia and presbyphonia had 100% and 95% diagnostic accuracy respectively compared to 45% for chronic laryngitis. Correct diagnosis was weakly correlated to therapist’s experience. Inter- and intra-rater GRBAS scores showed moderate reliability (ICC 0.514, weighted Kappa 0.656); again, weighted Kappa scores improved slightly with experience.

Conclusions: This preliminary study introduces alternative frameworks and protocols for managing dysphonia in the era of Covid-19. Many patients could be diagnosed via telehealth and referred for SALT teleconferencing initially, with re-referral for FNE if they do not improve - although a larger, multi-centre study would be required to optimise this. We suggest increased emphasis on benign laryngeal pathology in the trainee syllabus to aid telephone triage, coupled with recordings for review by more senior colleagues.
Thomas Borthwick
Putting elective care on hold during the COVID 19 epidemic has caused significant delays in delivering outpatient services

**Background:** Putting elective care on hold during the COVID 19 epidemic has caused significant delays in delivering outpatient services. One approach of addressing delays, is organising follow up appointments initiated and scheduled by the patient only when needed, instead of at set intervals, as set out in NHS England’s Good Practice Guide 2016 (Open access - OA).

**Aims:** This study aimed to assess if OA follow up could increase outpatient capacity without reducing patient satisfaction.

**Methods:** The Ear Nose and Throat (ENT) Department agreed criteria for patients to be offered OA follow up. All outpatient ENT appointments Electronic records in January 2019 were audited against the criteria. A modified Gasquet questionnaire was used to survey patient satisfaction, over the telephone, and power calculation estimated that 17 patients in each group would give our pilot study a power of 90%.

**Results:** In January 2019, 723 patients were seen in ENT outpatients, and 6% offered ‘open-access’ follow up. An additional 7% met the criteria for OA follow up but were given scheduled appointments. Of the patients given OA follow up, 10 patients (22%) requested an appointment. We telephone surveyed 19 patients given 'open-access' follow up, and 17 patients given scheduled follow up. Seventy four percent (74%) of patients were happy to be offered a follow up. Of the patients scheduled follow up, 59% would have preferred OA follow up.

**Conclusions:** In one department, OA follow up could save 40 appointments per month, or 480 appointments per year, without negatively impacting patient satisfaction.
Sebastian Sheehan

Drilling during mastoid surgery is considered potentially high risk for dispersion of the novel SARS-CoV-2 virus

**Background:** Drilling during mastoid surgery is considered potentially high risk for dispersion of the novel SARS-CoV-2 virus. Human coronaviruses can cause systemic infection via ocular transmission, and the British Society of Otology now recommend eye protection (EP) during mastoidectomy due to the risk of viral inoculation. This study was performed to assess the effectiveness of various forms of EP during simulated mastoidectomy.

**Methods:** We simulated right-handed mastoidectomy with surgical cutting drill bit on sheep bone. The specimens were drilled for one-minute under controlled conditions. The dispersed particulate matter was identified by UV light and quantified in segments on a grid overlaying a mannequin head wearing a variety of EP placed 30 cm from drilling zone. Readings were performed by two investigators independently to reduce bias.

**Results:** Two areas on the segment grid were analyzed, the eye and periorbital skin. The most effective PPE were the lab goggles which had 12.50% penetration to eye and 15.4% to periorbital skin, the least effective were polycarbonate safety specs having 50% penetration to eye and the single use glasses with 37.5% penetration to periorbital skin.

**Conclusions:** Despite compliance with EP bone dust from a mastoidectomy may migrate to the eye, increasing the potential risk of viral transmission. Large, close fitting EP has been shown to be the most protective and is recommended.
Sabrina Brar

We present the St George’s Covid shield, a polycarbonate barrier enclosure, designed as an additional precautionary measure to be used by ENT surgeons performing tracheostomies

Background: We present the St George’s Covid shield, a polycarbonate barrier enclosure, designed as an additional precautionary measure to be used by ENT surgeons performing tracheostomies, to further minimise the transmission of COVID-19 from infected patients to healthcare staff.

Methods: A simulated aerosol generating procedure comparing the effect of the shield on particle frequency (according to particle size) at different locations.

Results: Clinical investigations using the shield demonstrated a twelve-fold decrease in the number of particles detected at the position of the operating surgeon when the shield was used (particle size 0.3μm; with shield 8662 versus 103800 without shield). Over a 7-minute period, there was a reduction in the number of particles. At 7 minutes, the total number of particles (size 0.3μm) measured within the shield was comparable to the particle frequency at ambient levels (8752 within the shield compared with 8592 within the ambient environment). An aspiration unit reduced the number of particles detected within the shield over time. An average of 9649 particles (similar to ambient level) sized 0.3μm were measured under the shield after 2 minutes when the aspiration unit was used.

Conclusions: The clinical simulation illustrates a significant decrease in the number of particles detected at varying locations when the shield is used. The shield, used with appropriate PPE, could help to minimise exposure to aerosol-generated particles such as during tracheostomies on patients with COVID-19.