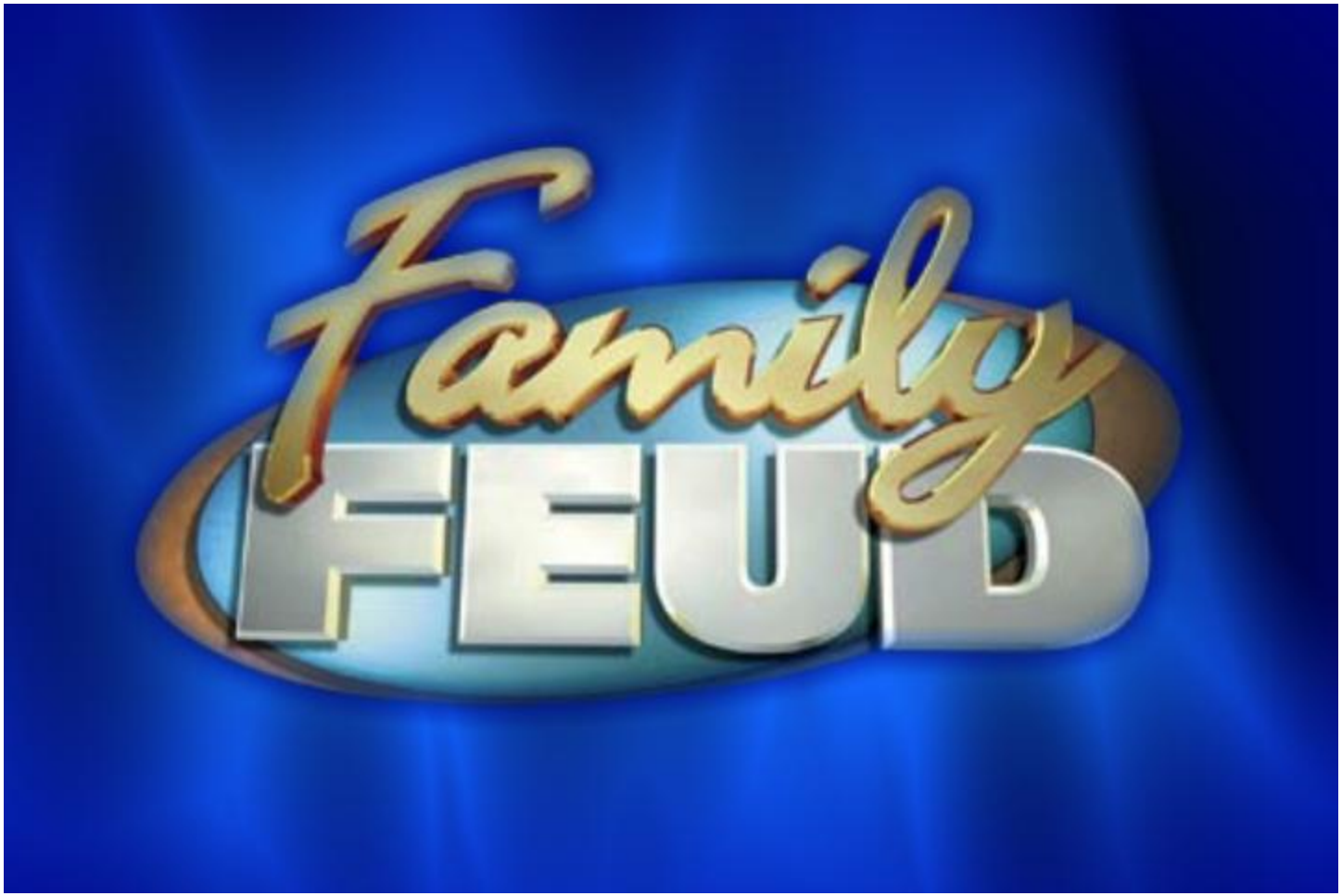
Question: RRP is a disease of _____ etiology?

Answer: Viral.

It’s a Head & Neck…



T or F : RRP is is the most common benign neoplasm of the larynx

Answer: True

Question: Name three characteristics of RRP patients.

Answer: Most patients are first born; have young, primigravid mothers; and come from families of low socioeconomic status

T or F: The adult form of RRP is more aggressive that the juvenile form.

Answer: False.

Question: Name the virus responsible for RRP and what type of virus is this ?

Answer: HPV, small DNA-containing, nonenveloped icosahedral (20-sided) capsid virus with a double-stranded circular deoxyribonucleic acid.

Question: How are HPV subtypes grouped?

Answer: viruses that exhibit less than 90% identity in specific regions of the viral genome being defined numerically as separate types.

Groupings correlate with tissue preference as well as similarities in pathophysiology

Question: Which HPV subtypes have been associated with RRP and which are the most virulent?.

Answer: HPV types 6 and 11 with a low malignant potential;
HPV-16 and 18 with a much higher malignant potential; and
HPV-31 and 33 with a
malignant potential that lies somewhere in between.

Question: Do the HPV subtype numbers have any significance as they relate to each other?

Answer: The closer the numbers, the more similar the viral subtypes are in their clinical manifestations.

Question: Name the three regions that makeup the HPV genome .

Answer: The genome consists of three regions: an upstream regulatory region (URR) and the two regions named according to the phase of infection in which they are expressed, the early (E) and late (L) regions.

Question: What are the roles of the E region and L region genes?.

Answer: The E genes are involved in potent oncogenes that are responsible for the replication of the viral genome.

The L region genes encode the viral structural proteins

Question: RRP lesions occur most often when what tissue types are present?

Answer: Anatomic sites in which ciliated and squamous epithelium are juxtaposed.

Question: Name 3 of the most common sites for RRP to be found.

Answer: limen vestibuli, the nasopharyngeal surface of the soft palate, the midline of the laryngeal
surface of the epiglottis, the upper and lower margins of the ventricle, the undersurface of the vocal folds, the carina, and at bronchial spurs.

Question: What are some iatrogenic squamociliary junctions?

Answer: In tracheotomized patients, RRP is often encountered at the stoma and in the mid-thoracic trachea.

Question: True or False: RRP can affect a child at 1 day of age.

Answer: True.

Question: Childhood-onset RRP is most often diagnosed between ages ___ to ___ of age. Adult RRP peaks between ages ___ and ___ ?

Answer: 2-4; 20-40

Question: True or False: Children with disease progression are diagnosed at younger ages than those who remain stable or become disease-free.

Answer: True.

Question: True or False: Approximately equal percentages of children and have very aggressive RRP(defined as requiring more than 40 lifetime Operations).

Answer: True

Question: True or False: Several studies have convincingly linked childhood-onset RRP to mothers with genital HPV infections, whereas evidence has not suggested that adult disease may be associated with oral-genital contact.

Answer: False.

Question: True or False: Cesarean section prevents the development of papilloma disease in children.

Answer: False

Question: What is the hallmark triad of RRP in children?

Answer: Relentlessly progressive hoarseness, stridor, and respiratory distress

Question: True or False. Gastroesophageal reflux disease has been identified as a major risk factor for disease persistence.

Answer: False. At this time this is anecdotal evidence.

Question: What is the key feature of a child's hoarseness on history that is suggestive of RRP?

Answer: Any child with **slowly progressive** hoarseness merits investigation and the clinician should not wait until total aphonia or airway problems occur.

Question: True or False. A child with RRP
would be expected to demonstrate a change in stridor with position change.

Answer: False.

Question: What is the goal of surgical management in RRP?

Answer: Complete removal of papillomas and preservation of normal structures.

Question: True or False. Patients whose papillomas were treated with the microdebrider experienced shorter operating time, but more pain and expense when compared with those treated with the laser.

Answer: False.

Question: True or False: The ASPO practitioner survey found the microdebrider now to be favored over use of the laser.

Answer: True

Question: The CO_2 laser has an emission wave length of _____ nm* and converts light to _____ energy .

Answer: 10,600 nm ; thermal.

Question: True or False. When there are no papillomas present, there is no longer any virus present.

Answer: False

Question: True or False: Muscle relaxants should be given to papilloma patients early on so that the airway can be easily visualized and secured.

Answer: False.

Question: Ideally, the laser is not used until the oxygen in the mixture is between ___ % and ___%.

Answer: 26%, 30%.

Question: What is a a limitation of the jet ventilation technique?

Answer: A limitation of this technique is the possibility of transmission of HPV particles into the distal airway.

Question: What is the benefit of jet ventilation?

Answer: Jet ventilation eliminates the potential fire hazard of the endotracheal tube and allows good visualization of the vocal cords.

Question: What is a human centipede?

Answer: 3 decondes in a row (aka 6 hole de conde).

Question: Name 2 benefits of using the microdebrider.

Answer: No aerosolized HPV particles; no airway fire risk.

Question: The most widely adopted criteria for initiating adjuvant therapy are…

Answer: 1) a surgery requirement of more than four procedures per year, 2) distal multisite spread of disease, 3) and/or rapid regrowth of papilloma disease with airway compromise

Question: The most commonly recommended adjuvant therapies are….

Answer: Cidofovir and Interferon

Question: What are interferons and how do they work?.

Answer: a class of proteins manufactured by cells in response to a variety of stimuli, including viral infection. The enzymes that are produced block the viral replication of RNA and DNA and alter cell membranes to make them less susceptible to viral penetration.

Question: Name 2 acute and 2 chronic reactions to interferon therapy?

Answer: acute reactions
(fever and generalized flulike symptoms, chills, headache, myalgias, and nausea that seem to decrease with prolonged therapy)
and chronic reactions (decrease in the growth rate of the child, elevation of liver
transaminase levels, leukopenia, and febrile seizures).

Question: Name the 4 authors on ref 31*.

Answer: Chhetri, Blumin, Shapiro, Berke.

Question: True or False: The incidence of tonsillectomy and adenoidectomy is increasing partially as a result of of a rising population.

Answer: False

Question: What are the 2 most common diseases affecting the tonsils and adenoids in the pediatric population?

Answer: Infection and obstructive hyperplasia.

Question: What are the components of Waldeyer’s ring?.

Answer: Palatine tonsils, pharyngeal tonsils (adenoids), lingual tonsils..

Question: When are adenoids formed?

Answer: During the third-seventh months of embryogenesis.

Question: Describe the features of adenoid facies.

Answer: mouthbreathing--> changes in the muscular vectors → negative effects on the growth of the midface → narrower palate and NP and abnormally positioned mandible

Question: What is the blood supply to the adenoids?

Answer: Pharyngeal branches of ECA (some minor branches from IMAX and facial)

Question: What is the blood supply to the tonsils?

Answer: Ascending pharyngeal, ascending palatine, lingual, facial.

Question: What is the relationship of the ICA to the tonsil?

Answer: ICA is 2 cm posterolateral to the deep aspect of the tonsil.

Question: Name the four zones that are important to antigen processing in the tonsil.*

Answer: specialized squamous epithelium, the extrafollicular area (T cell rich area), the mantle zone of the lymphoid follicle, and the germinal
center of the lymphoid follicle (B-cells)..

Question: What are the top three organisms implicated frequently in acute tonsillitis?

Answer: GABHS, Grps B,C,F Strep, H. flu, S. pneumo.

Question: Name 2 nonmicrobial influences on the development of chronic tonsillar Inflammation.

Answer: extraesophageal reflux (EER), presence of free radicals, immunomodulators, snoring.

Question: True or False. It is the afferent lymphatics that carry infection to tonsils and adenoids

Answer: False. Unlike LNs, tonsils and adenoids have no afferent lymphatics..

Question: True or False. Adenotonsillectomy decreases immunologic integrity in Waldeyer’s ring by 12-20%.

Answer: False.

Question: What is the best way to differentiate acute adenoiditis form a URI?

Answer: If the acute infection is accompanied by loud snoring.

Question: True or False: Both congenital and acquired forms of deafness may have a genetic basis.

Answer: True

Question: Define recurrent acute adenoiditis.

Answer: the presence of four or greater discrete episodes of acute adenoiditis during a 6-month period.

Question: Define recurrent acute tonsillitis.

Answer: from four to seven
episodes of acute tonsillitis in 1 year, five episodes for 2 consecutive years, or three episodes per year for 3 consecutive years.

Question: True or false. Even when typical signs and symptoms of obstructive adenoid hyperplasia are noted, a lateral neck radiograph is necessary to confirm the diagnosis.

Answer: False.

Question: Name 3 clinical findings that increase the possible risk of post operative VPI after adenoidectomy.

Answer: A bifid uvula, asymmetrical motion of the palate, midline diastasis of the muscles, history of fluid regurgitation through the nose, or a family history of insufficiency or clefting.

Question: Name three serious complications that can arise from acute tonsillitis.

Answer: acute cervical adenitis with abscess, PTA, poststreptococcal glomerulonephritis, autoimmune neuropsychiatric disorder (PANDAS), and rheumatic fever .

Question: What is the most common reason for tonsillectomy?

Answer: Obstructive tonsillar hyperplasia.

Question: True or False. Palatal clefting and VPI are absolute contraindications to adenoidectomy

Answer: False.

Question: List three possible post-op complications of adenoidectomy.

Answer: complications after adenoidectomy include nasopharyngeal stenosis,
bleeding, torticollis, and rarely C-spine subluxation from hyperextension
during surgery or inflammation of the cervical fascia with torticollis

Question: In chronic tonsillitis and obstructive tonsillar hyperplasia, a therapeutic trial with an antibiotic effective against _____ microorganisms or encapsulated anaerobes for ___ to ___ weeks may be beneficial and obviate the need for tonsillectomy in about ___%* of children

Answer: beta-lactamase-producing; 3, 6, 15%

Question: What is are the complications of tonsillectomy?

Answer: postoperative hemorrhage, emesis, or poor oral intake resulting in dehydration, general malaise, fever, malodorous breath, and throat pain.

Question: What are the advantages and disadvantages of tonsillotomy?

Answer: Although tonsillotomy may have certain short term benefits in regards to healing, the early reoperation rate is not insignificant and the long-term outcomes of these patients is uncertain.

Question: Overnight stays post tonsillectomy are advocated for patients who live greater than ___ minutes away for the hospital.

Answer: 60 (ie everyone in la with the traffic!).

Question: List three of the most common post-tonsillectomy complications.

Answer: emesis,
dehydration, hemorrhage, and airway obstruction.
Pulmonary edema may
occur rarely after the relief of both acute and chronic airway obstruction.

Question: True or False: PTA is a complication of tonsillitis.

Answer: False.

Question: What is PTA due to?*

Answer: PTA is now known to be secondary to infection of a peritonsillar minor salivary gland (Weber's gland) located between the tonsil capsule and the muscles of the tonsillar fossa.

Question: List 3 infectious causes of unilateral tonsillar hyperplasia.

Answer: *Mycobacterium tuberculosis*, atypical mycobacteria, fungi, or *Actinomyces*

Question: List the authors in Ref 29.*.

Answer: Shapiro N, Stocker A, Bhattacharyya N. Risk factors for adenotonsillar hypertrophy in children following solid organ transplantation. *Int J Pediatr Otorhinolaryngol*

Question: Name 3 absolute indications for tonsillectomy.

Answer: obstructive sleep apnea or
cor pulmonale, obstructive tonsils that are unresponsive to antimicrobial therapy that results in failure to thrive or progressive weight loss due to marked swallowing impairment, malignancy

Question: Name 3 reasons for elective tonsillectomy.

Answer: (a) frequently recurrent acute tonsillitis, (b) chronic tonsillitis, (c)
obstructive tonsils, and (d) peritonsillar abscess.

Question: True or false. A randomized clinical trial has been conducted and reported
only for tonsillar hyperplasia.

Answer: false for recurrent acute tonsillitis.

Question: Which organism was found in about one quarter of patients who had obstructive tonsils and who had been previously untreated?

Answer: *S. pyogenes*

Question: For recurrent AOM, A trial with
a prophylactic antimicrobial agent for ____ to _____ weeks
is usually recommended, and for those who fail to have
their recurrent attacks of otitis media prevented by
antimicrobial prophylaxis, _____
can then be recommended.

Answer: 6, 8, tympanostomy tubes.

Question: True or False. Myringotomy without tympanostomy tubes provides no advantage over no Surgery.

Answer: True

Question: Do studies support removing the tonsils at the time of an indicated adenoidectomy for otitis media?

Answer: No. The odds of requiring an indicated tonsillectomy sometime after the adenoidectomy is performed are almost 30% below 2 years of age, 15% when the child had had the adenoidectomy between 2 to 4 years age, 6% for ages 5 to 7 years, and
2% in children older than 7 years

Question: BONUS: What is the % of time with effusion for children who undergo myringotomy vs myringotomy with tube placement ?

Answer: 49.1, 34.9