

ENT:

“YOUNG” diseases in the
“OLD”

AND VICE VERSA

CASE 1:

43 YEAR OLD MALE

2 DAY HX OF INCREASING, MOSTLY RIGHT SIDED THROAT PAIN,
DIFFICULTY SWALLOWING, CHILLS. NO COUGH.

PRESENTS TO ER WITH INABILITY TO SWALLOW, SEVERE NECK PAIN,
THROAT TIGHTNESS

AFEBRILE, ALL VITALS NORMAL

TRIAGED LEVEL 4, SENT BACK TO WAITING ROOM

EXAM:

AFEBRILE, APPEARS DISTRESSED DUE TO DISCOMFORT BUT NOT DROOLING AND NO RESPIRATORY DISTRESS

SIGNIFICANT TRISMUS, UNABLE TO OPEN MOUTH MORE THAN 2 cm

SOFT TISSUE SWELLING AND TENDERNESS OVER RIGHT SIDE OF NECK AND THROAT

XRAY OF NECK SUGGESTIVE OF EPIGLOTTITIS

COURSE:

TRANSFERRED TO SJRH (FROM CCH)

INTUBATED AWAKE AND UPRIGHT BY ENT USING FIBRE-OPTIC SCOPE

2 DAYS LATER HAD SURGERY TO DRAIN RIGHT PHARYNGEAL ABSCESS
AND BILATERAL TONSILLECTOMY

RESPONDED WELL TO TREATMENT, CULTURES OF BLOOD AND THROAT
AND ABSCESS FAILED TO GROW ANYTHING SIGNIFICANT

EPIGLOTTITIS / SUPRAGLOTTITIS

CELLULITIS OF EPIGLOTTIS AND ADJACENT SOFT TISSUES

SWELLING AND EDEMA SPREADS FROM EPIGLOTTIS TO SUPRAGLOTTIC
ST'S AT BASE OF TONGUE

UPPER AIRWAY NARROWS, SWOLLEN EPIGLOTTIS ACTS AS "BALL VALVE"
ALLOWING EXPIRATION BUT LIMITING INSPIRATION

EPIGLOTTITIS - CAUSE

IN CHILDREN, MOST COMMON CAUSE IS *Haemophilus influenzae* type B (HiB)

STILL OCCURS BUT PREDOMINANTLY IN UNVACCINATED CHILDREN

Group A *Streptococcus* and *Staphylococcus* also frequent

IN ADULTS, CAUSED BY WIDE RANGE OF BACTERIA AND VIRUSES

IN MOST CASES, CULTURES ARE NEGATIVE

WHEN POSITIVE, CULTURES SHOW HiB FOLLOWED BY *Streptococcus pneumoniae*

EPIGLOTTITIS - MANAGEMENT

HIGH INDEX OF SUSPICION. PRESENTATION NOT AS DRAMATIC AS IN CHILDREN

AIRWAY MANAGEMENT VITAL. PATIENTS NEED TRANSFER TO TERTIARY CARE CENTRE

3RD GEN CEPHALOSPORIN PLUS ANTI-STAPHYLOCOCCAL ANTIBIOTICS +/- ANAEROBIC COVERAGE

GLUCOCORTICOIDS (eg DEXAMETHASONE IV) OFTEN USED BUT LITTLE EVIDENCE OF EFFICACY

CASE 2:

49 YEAR OLD MALE

RECENT RETURN FROM TRIP TO IRELAND. DEVELOPED URTI WHICH HE BLAMED ON SICK PASSENGERS ON PLANE

INITIALLY JUST MILD SORE THROAT AND EYES AND RUNNY NOSE

3 DAY HX OF INCREASING COUGH. CAME TO ER BECAUSE OF EPISODES OF INABILITY TO BREATHE BRIEFLY AFTER PAROXYSMS. COUGH TRIGGERED BY SPEECH, SWALLOWING, EVEN MOVEMENT.

AFEBRILE, ALL VITALS NORMAL. TRIAGED LEVEL 4

EXAM:

AFEBRILE, NO RESPIRATORY DISTRESS

SPEAKS QUIETLY, GUARDED MOVEMENTS OF HEAD/NECK. WORRIED HE'LL TRIGGER COUGH

BILATERAL CONJUNCTIVITIS AND CRUSTING OF EYELIDS

THROAT AND CHEST CLEAR BUT INSPIRATION TRIGGERS PAROXYSMS OF COUGH THAT PATIENT HAS DIFFICULTY SUPPRESSING

LABS NORMAL EXCEPT CRP 74

XRAY OF CHEST AND NECK NORMAL

PERTUSSIS:

HIGHLY CONTAGIOUS RESPIRATORY DISEASE CAUSED BY *Bordetella pertussis*

IN PRE VACCINATION ERA, PREDOMINANTLY DISEASE OF CHILDREN <10 YEARS OLD

NOW, >50% OF CASES ADULTS AND ADOLESCENTS

THESE SERVE AS SIGNIFICANT RESERVOIR FOR INFECTION IN INFANTS AND SMALL CHILDREN IN WHOM SERIOUS MORBIDITY AND MORTALITY MAY OCCUR

PERTUSSIS - CLINICAL MANIFESTATIONS

- INCUBATION 7-10 DAYS, UP TO 3 WEEKS
- CATARRHAL PHASE: 1-2 WEEKS OF MALAISE, RHINORRHEA, MILD COUGH, LOW GRADE FEVER. EXCESSIVE LACRIMATION AND CONJUNCTIVITIS ARE COMMON (AND KEY SIGNS)
- RARELY AROUSES SUSPICION ALTHOUGH THIS IS PERIOD OF TIME WHEN TREATMENT MOST EFFECTIVE

PERTUSSIS - CLINICAL MANIFESTATIONS

PAROXYSMAL PHASE:

- PAROXYSMAL COUGH - SERIES OF VIGOROUS COUGHS DURING SINGLE EXPIRATION
- AFTER PAROXYSM, VIGOROUS INSPIRATION CAN PRODUCE THE “WHOOO”, OFTEN FOLLOWED BY VOMITING OR RETCHING
- PRECIPITATED BY YAWNING, LOUD VOICE, EXERCISE, SWALLOWING, LAUGHING etc.
- TRIGGERED BY STEAM, MIST, SMOKE, STRONG SMELLS
- WORSE IN SMOKERS AND ASTHMATICS
- LASTS 2-3 MONTHS!

PERTUSSIS - FEATURES IN ADULTS

- LESS SEVERE THAN IN CHILDREN, NOT LIFE THREATENING
- PROLONGED COUGH MAY BE ONLY SYMPTOM
- RESPONSIBLE FOR SUBSTANTIAL PROPORTION OF COUGHS LASTING 2-4 WEEKS (3%) OR >4 WEEKS (>10%)
- RARELY FEBRILE, COUGH USUALLY NONPRODUCTIVE
- EXAMINATION AND XRAYS USUALLY NORMAL

PERTUSSIS - DIAGNOSIS

DIAGNOSIS: CULTURE, PCR, SEROLOGY

<2 WEEKS, CULTURE AND PCR

2-4 WEEKS, PCR MOST USEFUL

>4 WEEKS, ONLY SEROLOGY IS LIKELY TO BE POSITIVE

TESTS TAKE TOO LONG TO GUIDE TREATMENT.

PERTUSSIS - MANAGEMENT

WITHOUT TREATMENT, USUALLY ABLE TO CLEAR INFECTION IN 6 WEEKS

ANTIBIOTICS GIVEN IN FIRST 2 WEEKS WILL DECREASE COUGH SEVERITY AND DURATION (BUT RARELY DONE)

ANTIBIOTICS GIVEN AFTER 2 WEEKS MAY NOT DECREASE SYMPTOMS BUT WILL REDUCE TRANSMISSION TO OTHERS

DRUGS OF CHOICE: AZITHROMYCIN (500 mg THEN 250mg x 4D),
CLARITHROMYCIN (500mg BID X 7D), TMX DS BID X 14D

AVOID CONTACT WITH INFANTS AND SMALL CHILDREN FOR AT LEAST 5 DAYS AFTER STARTING ANTIBIOTICS

PERTUSSIS - MANAGEMENT

COUGH IS DUE TO DESTRUCTION OF RESPIRATORY CILIATED CELLS BY PERTUSSIS TOXINS

COUGH RESOLUTION REQUIRES REGENERATION OF THESE CELLS

THERE IS NO PROVEN EFFECTIVE TREATMENT FOR THE COUGH

SORRY!

CASE 3:

84 YEAR OLD FEMALE FROM NURSING HOME. PREVIOUSLY QUITE HEALTHY FOR AGE

3 DAY HX OF COUGH AND INCREASING SOB

NO HX OF COPD OR ASTHMA. NO PREVIOUS ADMISSIONS FOR LRTI

RECENT ADMISSIONS FROM SAME NH FOR "PNEUMONIA"

VS: O2 SAT 89% ON RA, RR 32, temp 36.7, HR 112 AND REGULAR

EXAM - CASE 3

VISIBLY DISTRESSED, TACHYPNEIC, AFEBRILE

AUDIBLY WHEEZING, VISIBLE INDRAWING, PRODUCTIVE SOUNDING
COUGH

CHEST: DIFFUSE EXPIRATORY WHEEZES AND INCREASED EXP PHASE.
SCATTERED CRACKLES BILATERALLY, ESP AT BASES

NO OEDEMA

INVESTIGATIONS - CASE 3

EKG : NORMAL EXCEPT FOR SINUS TACHYCARDIA

CXR: INCREASED MARKINGS BILATERALLY, SMALL LINGULAR INFILTRATE
NO EVIDENCE OF PULMONARY OEDEMA

LAB: CBC NORMAL EXCEPT Hgb 103, CRP 27, Na⁺ 124, K⁺ 3.8, CREAT 108,
TROP 8, BNP 506

RSV:

ACUTE RESPIRATORY ILLNESS THAT AFFECTS ALL AGES

IN NORTHERN HEMISPHERE, SEASONAL OUTBREAK ANNUALLY OCT/NOV TO APRIL/MAY, PEAKS JAN/FEB

SIGNIFICANT AND OFTEN UNRECOGNISED CAUSE OF LRTI IN OLDER ADULTS

MAY BE RESPONSIBLE FOR UP TO 25% OF EXCESS WINTER MORTALITY PREVIOUSLY ATTRIBUTED TO INFLUENZA A

IN USA RESPONSIBLE FOR 7.2 DEATHS PER 100K PERSON YRS >65 YO (COMPARED TO 3.1 DEATHS PER 100K PERSON YRS <1 YO)

RSV:

VIRTUALLY ALL INDIVIDUALS HAVE BEEN INFECTED BY THE AGE OF 2

THIS DOES NOT PROTECT AGAINST RE-INFECTION EVEN WITH SIGNIFICANT ANTIBODY TITRES (ALTHOUGH DECREASES SEVERITY)

HENCE WHY PRODUCING A VACCINE IS DIFFICULT

UP TO 35% OF ADULTS PRESENT WITH WHEEZING EVEN WITHOUT HX OF ASTHMA/COPD

AN INDIVIDUAL CAN BE INFECTED MORE THAN ONCE DURING A SEASON!

RSV - TREATMENT

DOES NOT RESPOND WELL (OR AT ALL) TO BRONCHODILATORS AND STEROIDS

TREATMENT IS MAINLY SUPPORTIVE

FREQUENTLY RESULTS IN BACTERIAL SUPERINFECTION, BRONCHO-TRACHEITIS, PNEUMONIA

MAY BE ASSOCIATED WITH INAPPROPRIATE ADH SECRETION AND SIGNIFICANT HYPONATREMIA

PREVENTION IS MOST IMPORTANT STRATEGY

CASE 4:

34 YEAR OLD MALE, NON SMOKER

RECURRENT RIGHT SIDED SORE THROAT OVER PAST 6 MONTHS WITH AT LEAST 3 COURSES OF ANTIBIOTICS FOR “TONSILLITIS”

NO COUGH OR OTHER SYMPTOMS

ON EXAM: AFEBRILE, RIGHT TONSIL ENLARGED WITH LOCALIZED INFLAMMATION AND SMALL AMOUNT OF EXUDATE. TEETH OK. MILD RIGHT SIDED CERVICAL LYMPHADENOPATHY

CASE 4:

REFERRED TO ENT:

BIOPSY SHOWED LOW GRADE MALIGNANCY OF TONSIL

SWAB POSITIVE FOR HPV

HAD SUCCESSFUL SURGERY, PROGNOSIS GOOD

ORO-PHARYNGEAL CANCER

DECREASING INCIDENCE STARTING IN 1980'S DUE TO DECREASED TOBACCO USE. RATE OF OPC BECAME STABLE AND THEN STARTED TO INCREASE AGAIN, IN SPITE OF CONTINUED DECREASE IN SMOKING.

IN 1990's, 50% OF OPC DUE TO HUMAN PAPILLOMA VIRUS (HPV)

BY 2016, 70-80% IN N. AMERICA AND EUROPE

ORO-PHARYNGEAL CANCER

HPV PREVALENCE IN GEN POPULATION IS ABOUT 7%

3X HIGHER IN MEN THAN WOMEN (10.1% VS. 3.6%)

IMMUNIZATION DECREASES PREVALENCE BY FACTOR OF 15

TIMING: EXPOSURE TO HPV TO MALIGNANCY AT LEAST 10 YEARS,
SIMILAR TO CERVICAL CANCER

ORO-PHARYNGEAL CANCER - FEATURES

- AGE YOUNGER IN HPV +ve THAN HPV -ve BY ABOUT 10 YEARS FOR PEAK INCIDENCE
- GENDER 84% MALE (HPV +ve), 76% MALE (HPV -ve) REASON NOT CLEAR
- LOCATION: PREDOMINANTLY TONSILLAR AREA AND BASE OF TONGUE
- MUCH BETTER PROGNOSIS IN HPV +ve CASES (8 YEAR SURVIVAL 71% VS. 30% FOR HPV -ve)

ORO-PHARYNGEAL CAANCER

HIGH INDEX OF SUSPICION! REFER TO ENT EARLY.

?SWAB FOR HPV?

IF NEGATIVE FOR HPV AND NON SMOKER, MALIGNANCY UNLIKELY

“BEWARE OF THE ONE SIDED TONSILLITIS!”