Oral medicine sheet no.1 3

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In the last lecture we have talked about asthma with it's Extrensic and intrinsic forms , what is the difference between them,? , well, the extrinsic mostly affects the young aged people around ~18 or 19 yrs approximately , meanwhile the intrinsic exists in elders . We had also talked about COPD , which resembles asthma except that copd occurs more continuously. In COPD there will be irreversible destruction of the airway . In COPD we will have two conditions that exist apparently always with each other => 1st an inflammation { chronic bronchitis } where there is a productive cough for more than 3 consecutive months , 2nd is the dilatation of the terminal alveolar air spaces also called {emphysema} . It is difficult to choose antibiotic for those COPD's patients . And if Dental infection had occurred in this case the bacteria will be highly resistant to antibiotics .

\*\*The doctor asked about the diffirence between " caseating " and " noncaseating " granulomas ? And this what ive gathered from the web :-

*The use of the terms "caseating" and "non-caseating" to describe the microscopic appearance of granulomas, although prevalent, is inappropriate since the term "caseous" applies only to the grossly visible cheese-like appearance that may be associated with necrotizing granulomas, necrotic neoplasms and other types of necrotic lesions. There is no typical microscopic appearance that corresponds to the gross appearance of caseation.*

**Sarcoidosis :-**

It is an aquired systemic graulomatous disease, affecting multiple organs. With unknown etiology ( it maybe related to certain genetic predisposition) and has non-specific signs and symptoms .it forms a non-caseating granuloma ; while tuberculosis forms a caseating granuloma in the affected organs ; The lung and the hilar lymph nodes are the most affected by this disease.

\*\* granulomatosis and orofacial granulomatosis along with sarcoidosis all considered as granulomatous disease where they are charactrized with chronic inflammation and presence of granuloma .

**Clinical features:**

mostly clinical features are non-specific, that`s why most patients are diagnosed at late stages.

The non-specific clinical features: fatigue , malaise , weight loss , shortness of breath and chest discomfort**.**

Diagnosis :

1- Mostly depend on the clinical features.

2- Biopsy from the hilar lymph nodes that are around the trachea of the lung.

3- Chest x-ray .

4- Diagnostic tests ; those patients have :

A- Elevated ESR.

B- Elevated angiotensin converting enzyme (ACE) levels.

C- Elevated serum calcium levels

**Oral manifestations** that may appear in those patients :

1- slaivary glands swelling

2- **Xerostomia**.

3- Mucosal patches and nodules . [brownish]

4-Gingivitis and gingival hyperplasia.

5-lip swelling as in Crohn`s disease & orofacial granulomatosis.

6-Skin lesions around the oral cavity and on the nose.

7- sarcoidosis itself represented as one of the significant manifestations of -heerfordt’s syndrome- along with facial palsy ,uveitis and parotid swellings .

As we said this disease occures with multi organ involvment ; so it can affect other organs including the Heart as an example wich sometimes ending up with heart failure or affect kidneys resulting in renal failure . Sarcoidosis can also affect the dental treatment depending on the type of affected organs .

So These complications r called (assosiated morbidities ) wich means there is other parts of the body being affected in a specific disease

A case : a patient came to the clinic complaining of xerostomia , upon examination everything was normal except two

newly appearing lesions on the skin & non-specific systemic symptoms ( fatigue , malaise and general weakness).It was

suspected that it was a sarcoidosis , so serum test and chest x-ray were both recommended and the results revealed that

it was sarcoidosis. So, we conclude that the oral manifestations maybe the first signs of sarcoidosis.

Management :

Patients are managed with systemic steroids and immunosuppressive drugs.

(colchicine) and cyclosporines are examples of drugs that posses imunosupressive ability .

Dental management:

1- A prophylactic steroid cover is needed ; as long as these patients are managed by systemic steroids ,

2- They may have associated comorbidities ; diabetes , hypertension or a lung disease that may affect the dental

management.

\* (**Cystic fibrosis**)

# cystic fibrosis is a common genetic- Autosomal recessive - disease

#shows fibrosis in lungs and increase the viscosity of mucuos secretions

# affects mainly lungs and “pancereas” ; so CF pts most probably will have DM

Etiology :

**Mutation in the CFTR** ; cystic fibrosis related gene .The main problem is intracellular retention of sodium and chloride (elevated levels) wich will lead to increase the viscosity in mucous secretions ;

sodium and chloride stay within the cells leading to less amount of fluids intracellularly and viscous mucous secretions accommodating within the trachea leading to recurrent infections , even the sliva in CF pts will be thick and viscouse , those pts mostly complain from dry off (xerostomia) .

\* This disease is mostly shown in children because it is autosomal recessive

#Clinical features :

1- Recurrent chest infections.

2-panceratic insuffcincy

3- Respiratory symptoms ; cough and chronic sinusitis

4- Poor weight gain and retarded growth.

5- slow growth (reatardation ) in children

6- Symptoms of bowel obstruction and steatorrhea (fat in feces) ; they will become diabetic ; so , pancreatic insufficiency leads to diabetes mellitus , malnutrition and deficiency of fat soluble

vitamins.

The fat soluble vitamins are important; vitamin K deficiency leads to bleeding susceptibility.

So when a dentist need to do multiple extractios for CF pts he should get the bleeding profile test results for them tests include( pt, ptt and **INR** ) mean while we dont need to know the bleeding time cuase platlets are not affected in these pts ; INR is the most important to consider . Fat soluble vitamines play significant role in clotting factor synthesis .

Diagnosis :

1- By clinical test.

2- Genetic test for CFTR gene

3- Chest x-ray analysis; signs of fibrosis and collapse in lungs plus pneumonia and recurrent infection.

4- Sweat or saliva test ; to detect if there are elevated levels of sodium and chloride.

\* The life expectency is low in CF patients

**Management** includes :-

1- chest physiotherapy

2- Broncho dialators

3- Antibiotics ; most patients receive antibiotics continuously since the childhood specially tetracycline , that`s why cystic fibrosis patients will get discoloration of teeth.

4- Mucolytic agents. => decreases the viscosity of mucous secretions

5- vaccination given to all types of influenza viruses to prevent respiratory tract infections.

5- Pancreatic enzyme replacement along with high caloric and low fat diet; so they have high caries index.

In the previous years there was a dental student with CF he tends to take an insulin alternatives wich replaces all panceratic enzymes

**Oral manifestatios ;**

1/ enamel hypoplasia

2/Delayed development and eruption of teeth.

3/ increased the prevalence of dental caries , Drs always recommend those pts to have high caloric low fat diet since they r complaing from metabolic disturbances and this high caloric diet is what behind caries development

4/Salivary gland hypertrophy & thick saliva

5/Staining; because of the antibiotic use espically tetracycline

6/Candidal infection; because of using wide spectrum antibiotics for long time.

\*\* these pts mostly have problems with general aneshesia as any other pts with chronic respiratory disease

3-**Wigner`s granulomatosis.**

is a rare multisystemic autoimmune disease that affects small and medium sized blood vessels leading to vasculitis

**Diagnosis**

Antineutrophil cytoplasmic antibody (ANCA) testing ; will show positive results

\*\* Granulomatosis refer to the presence of granuloma : ) , This disease has fatal outcomes if not treated .

Patients are given high doses of immunosuppressant (predispone)&cytotoxic

chemotherapy

**Oral manifestations :**

1-Strawberry gingivitis / gingival hyperplasia.

2-Palatal perforation ; as a result from infection

3-Sudden nose deformity.

**Dental management**:

It is complex because the patients have respiratory symptoms ,or may have renal failure and receive high dose of immunosuppressant and corticosteroids , so they need steroidal cover & antibiotic prophylaxis.

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Prevalence : a condition which is already existed and still active recently

Incidence : a condition with a new occurance started from a certain point of time

**Lung cancer :**

It is the cancer with the highest incidence NOT prevalence rate ; the incidence of the lung cancer is higher than that of the breast cancer while the prevalence rate for the breast cancer is higher than that for the lung cancer ; because of the

bad/poor prognosis of the lung cancer. ( high mortality rate in lung cancer mean while breast cancer patients can live longer )

\*\* lung cancer is one of the common side effects of smoking

Signs and symptoms:

Chest pain , cough , shortness of breath , bleeding coughs & weight loss

**Diagnosis** : by brochoscopy ; biopsy taken from lungs to look for any signs of cancer .

**Oral manifestations :**

1-Palatal pigmentation; unknown mechanism but it maybe related with heavy smoking as in (smoker melanosis) , so when we face pts with palatal pigemntations even if they were heavy smokers we should look and ask for any signs and symptoms related to lung cancer . Lung cancer mostly detected late in its last stages and this is one reason of why this disease comeup with poor prognosis.

2- metastasis to jaw bones or soft tissues (this condition is rare ) . The most types of cancers that are able to metastisize in the oral area are prostate and breast cancers and what come next lungs and kidneys .

We have many cases of respiratory emergency where we have to treat the patients including :

1-Asthmatic attack

2-Aspiration of foreign bodies.

3-Collapse ; patients receiving systemic steroids may get adrenal crisis.

**Asthmatic attack :**

Asthmatic patient suddenly becomes short of breath, coughing , changing in color (pale) , wheezing and having tachypnea .

How to behave ( **management**) :

1- Stop performing any dental procedure and then Reassure the patient .

2-Give him oxygen directly (and give him his inhaler; that`s why if any patient is receiving an inhaler, tell him to bring it with him to the clinic)

3-If it is a severe case , we give him an emergency dose of hydrocortisone ( 200 mg IV) or adrenaline (bronchodilator) or combination of both SQ with or without theophylline. Adrenaline can be given either IM or subcutaneously . It is better to treat these pts in a clinic located nearby the emergency .

**Aspiration of foreign bodies** :

Teeth, files or burs may be aspirated reaching the trachea . Then most probably entered the right portion of the lung (why?) cause the brouncus there is more vertical and larger in size . And if aspiration took place pts will have some symptoms of respiratory obstruction such as inability to breath and changes in sound (stridor sound) .

How to behave (**management**) :

\*\* Our goal here is to help the patient get the aspirated object out .

First we shoud keep him in an upright position and encouraging him to cough

If this didnt work ,

Hemilich manuver should be done ,

And in the sever cases where pts cant breath at all , we should definitly call for emergency and they may do Tracheostomy and opening the airway surgically .

Pts who take steroids may undergo to an adrenal crisis and this is prevented by prophylactic cover .

The End ,

رب اخرجنا و أحبتنا جميعا من ظلمات الوهم الى النور

لا تنسونا بالدعاء

بالتوفيق للجميع