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( % 80) 12  
109

109 ThinOptX  
1.5

13  
0.12 ( % 86)

15

0.75 - 0.50

Agarwal  
5 ThinOptX

( % 80) 4 .2005-2004  
107 :

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7 - 3 - 24

0.12

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## Studying the Results of Implantation of the Thin Rollable Intra-Ocular Lens through an Ultra-Small Corneal Incision after Cataract Extraction

**Anas Nameh**

**Dept. of Ophthalmology, Faculty of Medicine**

**Supervised by: Ass. Prof. Ahmad Basem Albaredi**

The aim of the research is to study the optical and functional results of implanting the rollable ultra-thin lens ThinOptX which can be implanted through 1.5 mm corneal incision and thus provides full advantages of ultra-small incision biaxial phacoemulsification .

Randomized Prospective study on 15 patients with visually significant cataract and various degrees of nuclear sclerosis underwent ultra-small incision biaxial phacoemulsification and implantation of the rollable ultra-thin lens ThinOptX in department of ophthalmology , almuwassat university hospital during 2004-2005 .

the following points were studied :

\* BCVA before surgery and after 24hours - 3days - 7days

\* change in surgically induced corneal astigmatism by performing corneal topography before surgery and after 1week – 2months .

\* Development of any degree of accommodation by lens design .

12 patients (80%) reached BCVA of 0.9 or more after one day of surgery , and all of patients reached 0.9 or more after a week .

The change in corneal astigmatism did not exceed 0.12 diopter in 13 patients (86%) after 2 months of surgery .Considerable degree of accommodation (0.50-0.75 diopter) was developed in patients providing comfort and satisfaction during reading for relatively near distance.

Agarwal from India studied the implanting of this lens in 5 eyes . His results - according to BCVA- were less than us , 4 of his patients (80%) reached BCVA 0.7 or more after one day of surgery , this may be because it was an initial small study .

But it was –according to change in corneal astigmatism- the same of us , his mean change in corneal astigmatism was 0.12 diopter after one day of surgery .

**Key Words:**

thin lens , biaxial phacoemulsification , small incision .

2006 -

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20 - 15

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2004 - 2003

.369

252. 20 - 15

.(%68,29)

%.53

175

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## Turbinate Hypertrophy

**Hussein Baydoun**

**Dept. of: E.N.T , Faculty of Medicine**

**Supervised by: Prof. Nasser Alhaj**

When there was an important role of the Nasal turbinate in the respiratory function of the nose, it was necessary to study the etiology of hypertrophy and the symptoms. We spoke about the medical treatment for the turbinate disease and the surgical management for turbinate hypertrophy.

We studied the charts of the patients that were operated for the turbinate in the otorhinolaryngology department in Al-Mowassat hospital during the years 2003-2004. The number of patients was 369. The statistics showed that the highest percentage for those patients was 15-20 years old, 252 cases (68, 29%). The main reason for those patients to visit ORL clinic was feeling of nasal obstruction. The surgical treatment was found that interior turbinate reduction was the highest procedure type, 175 cases (53%).

- 1-Highest percentage was 15-20 years old.
- 2-Percentage according clinical examination was highest percentage for turbinate hypertrophy with septal deviation.
- 3-Most of the patients suffer from nasal inflammation or nasal polyps.
- 4-The main symptom of the patients is feeling of nasal obstruction.

**Key Words:**

Turbinate hypertrophy  
Nasal Inflammation  
Allergic Rhinitis  
Nasal obstruction



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-3

-4

9

-12

%8.81

-5

(%77.7 )

7

-6

-7

-1

(%7.27)

-2

## The Epidemiology of Congenital Anomalies in the Urinary System And Its Predisposing Factors

**Khaldoon Al Harfoosh**

**Dept. of Pediatrics, Faculty of Medicine**

**Supervised by: Prof. Munzer Sheikh El Haddadin**

The aim of this study was to get an idea about the congenital anomalies in the urinary system diagnosed in the neonatal period in Children's Hospital, and to determine the percentage and the distribution of each one, and the relationship of these anomalies with the mother's abortions, gestational age, low birth weight, and predisposing factors.

A total of 147 patients who were admitted to the Intensive Care Unit of Newborn and Premature in Children Hospital in Damascus between 1/3/2004 and 28/2/2005, were studied. The study was based on the accurate history and physical examination and other investigations.

1- 147 cases were included in the study (5.72% of total admissions)

2- Males percentage was : 60% , females was : 40.1% , and males / females ratio was : 1.5/1 .

3- Most cases which hospitalized were Obvious anomalies (approximately half of cases) while detection of anomalies during pregnancy included only 7.27% of cases.

4- There were 99 cases with only one urinary anomaly(67.34%),and 48 cases with multiple urinary anomalies(32.66%), there was also 33cases who had other systemic anomalies.

5- Urinary bladder version was the most common anomaly (23.13%), then hydronephrosis (17.01%), and then polycystic kidney (12.92%) .

6- Abortions were recorded in 21.8% of the mothers .

7-28 cases were preterm (25.46%).

8-The average of the birth weight was (2800 ± 500 G). The ratio of low birth weight (LBW) was (23%) .

9-None of the mothers was smoker, alcohol drinker ,or has ever been radiated .

10-There were 38 cases who had medications, but most of these medications were safe especially for they were prescribed in certain doses by obstetricians.

11-There 27 pregnant women who had diseases during pregnancy(24.54%) ,and sexual infections were the most frequent for they took place in about half the number of the cases(10.9% of all pregnancies),but this ratio was close to that of sexual infections in other pregnant women.

12-Family history was positive in 9 cases (8.81%) , 7 of these were in the sisters and the brothers (the rate is 77.7% of those who had positive history.) .

1-Congenital anomalies in the urinary system form an important part of the whole admissions, and should have concern.

2-Some cases (7.27%) were detected by means of ultrasonography during fetal life.

3-Those with multiple urinary anomalies formed high proportion of cases , as those with associated systemic anomalies also did.

4-There is an important role of the congenital anomalies as a cause of abortions,prematurity, and low birth weight.

5-We didn't find a relation with the mother's diseases,and administration of medication during pregnancy.

6-Our social customs decrease the role of smoking and alcohol drinking as causes for anomalies.

7-Familial history should always be emphasized on during investigation.

**Key Words:** congenital anomalies, urinary system , newborn .

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 26- 2005 -2004 :



## Radiological Investigation of the breast Cancer

**Ruba Mattar**

**Dept. of Radiology, Faculty of Medicine**

**Supervised by: Prof. Said Hwajja**

Breast cancer is the most common malignancy in females (32 % of all malignant tumours) and is responsible on (18 %) of deaths in the USA, between (40 – 50 years)

Early detection of cancer by the routine Mammography test has a big role in reduction of death in the elderly women over 50 years which became the second cause of death since 1985 after the lung cancer at that time.

This study was performed on 200 patients selected by using their files for the inpatient (Al Assad University Hospital) and by using acute clinical history and examination of the outpatient (between September 2004 – September 2005 ) and 26 cases were proved by history after surgical biopsy .

One third of these patients were older than 40 years and a few of them came to do a routine screening without any complaint.

The peak of cancer was on the age of fifth and sixth decades.

The Radiological findings was typical for those cases which was proved to be malignant by histology ( speculated–microcalcifications – hyperdense – irregular margins ) and ( hypoechoic – ill circumscribed – inhomogeneous structure ovoid with long diameter parallel to skin ) ulated into third of them, and the vast majority were proved to be (cystic fibroadenomas).

Pain was the chief complain of tow third of symptomatic patients and one third of them were admitted with a complaint of palpable mass with or without pain. And the majority of them were found in the upper lateral quadrant.

Comparatively with the International studies (29.3 per 100.000 in UK) (22.4 per 100.000 in USA) (2.6 per 100.000 in Korea ) .

The result was resembled in Syria with a rate of 25 % of all cancers in Syria.

**Key words:**

(Mammography – breast cancer – Biopsy).

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8.9 (CHF)

ACEI

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SLN ACEI :(2)

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(odds ratio)

## hyperkalemia in congestive heart failure patients using ACE inhibitors and spironolactone

**Salma Al-Samel**

**Dept. of Internal Medicine, Faculty of Medicine**

**Supervised by: prof. M.Emad Othman**

Recent studies have shown a fall in mortality with minimal side effects in severe congestive heart failure(CHF)patients receiving angiotensin-converting enzyme inhibitors(ACEI)plus spironolactone(SLN). However, the risk of hyperkalemia due to ACEI may be increased by the concomitant use of SLN.

We conducted an introspective study by examining cases of outpatients of compensated CHF in Al-Muwasat hospital early on 2005 who had used ACEI with or without SLN. We followed the patients for the 30 days and assessed various therapeutic regimens as well as serum potassium and creatinine, before and after drug exposure. the primary end-point was the development of hyperkalemia( $k > 5.5$  mEq/l). for analysis, the patients were split into two groups: the first group was treated with ACEI/SLN (n=76)and the second group was treated with ACEI (n=52).

We found 20 cases of hyperkalemia in ACEI/SLN patients six of them were severe but only two cases of hyperkalemia was found in ACEI patients the odds ratio for developing hyperkalemia in ACEI/SLN patients compared with the ACEI patients was 8.9.

the risk of hyperkalemia was 8.9 times greater in patients using ACEI/SLN. (26%) of the 76CHF patients using ACEI/SLN developed hyperkalemia and this was severe in (11.5%) of them. the development of hyperkalemia was connected to the development of renal failure in all cases.

Controlled clinical trials have reported a lower incidence of hyperkalemia in heart failure patients using ACEI/SLN, but these studies excluded patients with serum creatinine  $> 2.5$  mg/ dl and with serum potassium  $> 5$  mEq/ l. following the RALES study a report by George et al. emphasized the rising risk of hyperkalemia in patients using ACEI/SLN for cardiological conditions. Schepkens et al. reported that 25 hyperkalemic patients using ACEI/SLN experienced severe adverse events.

**Keywords:**

angiotensin-converting enzyme inhibitors, congestive heart failure, hyperkalemia, spironolactone.



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## Role of Ultrasound in the Diagnosis of Congenital Choledochal Cysts

**Emad Al-Sibai**

**Dept. of Internal Medicine, Faculty of Medicine**

**Supervised by: prof. Sameer Al-Haffar**

Congenital Choledochal Cysts is a rare abnormality of biliary tract. It has a characteristic clinical triage: abdominal pain – jaundice – mass in the upper abdomen. But its diagnosis needs a high clinical suspicion with often radiological diagnostic tools. Ultrasound had to be the most important of these tools, and sometimes there is no need to another tool.

A retrospective study was done on 37 patients with choledochal cysts, in the High Education Ministry hospitals. Ultrasound was used on all patients for the diagnosis and determining the type of cysts, with comparing between the sonographic findings.

Most of patients were children < 14 year old. The diagnosis was certain in all patients because surgery to excise the cyst was done to all of them. The most common type of cyst was the first type. The accuracy of diagnosis by ultrasound was different between types of cysts, and it exceeded 70 % in the first type.

The benefit of ultrasound was noticed in the diagnosing of cystic masses in the abdomen, and its predictive value raised with the presence of notable clinical history and exam. But some difficulties raised occasionally when there are other differential diagnoses – especially in children – and this made the use of other helpful diagnostic tools justifiable to assure the diagnosis. Diagnostic tools like ERCP and MRCP, or even IVP and upper gastrointestinal series.

**Key Words:**

- Congenital Choledochal Cyst
- Ultrasound

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CT

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## Head Trauma in Pediatrics by CT

**Kawthar Younes**

**Dept. of Diagnostic Radiology, Faculty of Medicine**

**Supervised by: Prof. Ali Alfakeer**

CT Is imaging procedure of choice in detecting the children with intracranial Bleeding requiring surge and what is the differentiation between child and adult Head anatomy by CT.

The comparison with the world –wide studies the sensitivity and specificity were equal to that in our study complications were serious and dangerous : hydrocephalus, seizures, cephalomalacia

The study was done on 100 childs who accepted in Pediatric Hospital within Two years and showing the rule of imaging by CT in ambulance situations.

**Key Words:** Head Trauma In Pediatric.

CT proceeds other modalities of imaging the head trauma It is necessary to examine the clinical situation of a child before imaging The hemorrhage in the brain parenchyma is the most common

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The new England Journal of  
Medicine

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100 : ( )

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( ) (%10) 10  
4

( ) (%4)



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## Comparison of Open Surgery and Laparoscopic Surgery for Inguinal Hernia Repair

**Maher Hejazee**

**Dept. of Surgery, Faculty of Medicine**

**Supervised by: prof. Yhya .H.Khayat**

There are many kinds of methods of inguinal hernia repairing. Firstly synthetic sutures were used in repairing then mesh was used. Finally hernia repair are done with laparoscopic techniques. From this point, this study is important in comparison between open and laparoscopic surgery for inguinal hernia repair .

The study was performed in Alassad and almuwasat university hospitals between \2000-2005\ . There were two groups of patients: (A): contained 100 patients had inguinal hernias were repaired by open surgery. (B): contained 100 patients had inguinal hernias were repaired by laparoscopic surgery. We recorded the information and compared them about postoperative recovery and complications and recurrences. This information were recorded when the patients came back to the surgical clinics in the hospital.

8 of patients in group (A) had wound infection but none of patients in group (B) the patients in (B) had a more rapid recovery and they returned to their daily activity and their work rapidly.

10 of patients (10%) in (A) had recurrences as compared with 4 patients (4%) in (B) and the most of recurrences were during the first year after surgery.

The patients who had laparoscopic inguinal hernia repair had rapid recovery and they returned to their normal daily life rapidly and had lower rate of recurrences so the laparoscopic hernia repair is an important method for inguinal hernia repair. We compared this study with a study were published in the new England Journal of Medicine the results were nearly the same in two studies.

**Key words:** Inguinal hernia. Laparoscopy. Open surgery.



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48 (%86.66) 416  
.(%3.33) 16 (%10)  
%97.9  
. %9.3 %90.87

(2005-2001)  
480

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## The Role of Fine Needle Aspiration Biopsy in the Assessment of Breast Cancer

**Mohamed Zuheir Kazzaz**

**Dept. of Surgery, Faculty of Medicine**

**Supervised by: Prof. A. Abu-Kassem**

The use of triple assessment is regarded as standard approach in assessing all breast lesions. This consists of clinical, radiological and pathological examination. Fine needle aspiration cytology is regarded as first step in pathological assessment of any breast lesion .

This audit was conducted at the three main university hospital in Damascus, namely Al-Assad, Al-Muwasat and the Nuclear Medicine Center, between 2001 and 2005. The study included 480 patients with breast lesions both palpable and non palpable all of whom had Fine - needle aspiration cytology performed as part of their assessment. This was done with close cooperation between the departments of surgery and histopathology.

(86.66%) 416 cases were reported as benign, (10%) 48 malignant and (3.33%) 16 suspicious.

The sensitivity and specificity of this procedure was 90.87% and 97.9% respectively.

Most cases reported malignant by fine needle aspiration cytology were re-confirmed on final pathology report.

Fine needle aspiration cytology is an easy, safe accurate method for assessing breast lesions with high sensitivity and specificity rates. It carries a learning curve therefore; it should be done by properly trained staff if we are to rely on its result in planning further management of the patients. The results of our study compared favorably with other published data.

**Key Words:**

- Breast lesions
- Biopsy
- Fine needle aspiration

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.NYHA

## Atrial Arrhythmia after Surgical Closure of Atrial Septal Defect in Adults

**Mutaz Hamad**

**Dept. of Internal Medicine, Faculty of Medicine**

**Supervised by: Prof. Mouhmad Moubark**

Atrial flutter and atrial fibrillation are causes of morbidity in adults with an atrial septal defect. In this study, we attempted to identify risk factors for atrial flutter and fibrillation both before and after the surgical closure of an atrial septal defect.

We searched for preoperative and post operative atrial flutter or fibrillations in 213 adult patients (82 men and 131 women).

who underwent surgical closure of atrial septal defects because of symptoms, a substantial left- to- right (ratio of pulmonary to systemic blood flow, >1.5:1), or both at Al Muwasat Hospital between 1986 and 1997.

Forty patients (19 percent) had sustained atrial flutter or fibrillation before surgery. As compared with the patients who did not have atrial flutter or fibrillation before surgery, those who did were older and had higher mean pulmonary arterial pressures. After a mean follow -up of  $3.8 \pm 2.5$  years, 24 of the 40 patients (60 percent) continued to have atrial flutter or fibrillation.

New- onset atrial flutter or atrial fibrillation was more likely to have developed at fol- low- up in patients who were older than 40 years at the time of surgery than in those who were 40 or younger. Late events (those occurring more than one month after surgery) included stroke in six patients (all but one with atrial flutter or fibrillation, one of whom died) and death from noncardiac causes in two patients. Multivariate analysis showed that older age (>40 years) at the time of surgery ( $P = 0.001$ ), the presence of preoperative atrial flutter or fibrillation ( $P < 0.001$ ), and the presence of postoperative atrial flutter or fibrillation or junctional rhythm ( $P 0.02$ ) were predictive of late postoperative atrial flutter or fibrillation.

The risk of atrial flutter or atrial fibrillation in adults with atrial septal defects is related to the age at the time of surgical repair and the pulmonary arterial pressure. To reduce the morbidity associated with atrial flutter and fibrillation, the timely closure of atrial septal defects is warranted.

**Keywords:**

Atrial septal defect (ASD)- NYHA - trial flutter- Atrial fibrillation.



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## Changes on Respiratory System in Obese Patients During and after General Anesthesia

**Nahed Molhem**

**Dept. of Anesthesia and Resuscitation, Faculty of Medicine**

**Supervised by: Prof. Ali Arnaout & Prof. Hind Dighli**

This research purpose to observe changes on respiratory system in obese patient recording to obesity degree (light – moderate - sever) during general anesthesia and the first 24 hours after Surgery although we are using necessary respiratory support to prevent respiratory failure.

- 23 obese patients randomly assigned.
- Hospitals of Ministry of high education..
- The duration is 3 months.
- Monitoring: pulse oxymetry, end tidal CO<sub>2</sub>, arterial blood gases.

- Rate of respiratory complications in obese patients increase more than non obese patients after surgery under general anesthesia including hypoxemia and hypercapnia in variable degrees.

Most studies and the results we have obtained are showing the importance of special monitor observing for obese during general anesthesia and next 24 hours, and respiratory support to prevent any degree of respiratory failure.

**Key Words:**

Complication – obesity – respiratory failure

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%98  
%81.4

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10  
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6) ( 9 24 8.5)  
( 7

( %87.9 %96)



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## **Rabeprazole vs Esomeprazole in Non-Erosive Gastro-Esophageal Reflux Disease: A Randomized Study**

**Nassr Al-Hariri**

**Dept. of Internal Medicine, Faculty of Medicine**

**Supervised by: Prof. Aiman Ali**

Gastro-esophageal reflux disease (GERD) is becoming increasingly common in Asia. Basal Data on the efficacy of proton pump inhibitors in patients with non-erosive GERD (NERD) in Asia is lacking. This double-blind study compared the efficacy and safety of Rabeprazole with Esomeprazole in relief of symptoms patients with NERD.

On hundred and thirty-four patients with reflux symptoms of NERD and normal endoscopy were randomized to receive Rabeprazole 10 mg or Esomeprazole 20 mg once daily for 4 wk. Symptoms were recorded in a diary and changes in severity of symptoms noted.

At 4th week of treatment, Rabeprazole 10 mg and Esomeprazole 20 mg were comparable with regards to the primary endpoint of time to achieve 24-h symptom-free interval for heartburn 8.5 d vs 9 d and regurgitation 6 d vs 7 d. Rabeprazole and Esomeprazole were also similarly efficacious in term of patient's global evaluation with 96% of patients on Rabeprazole and 87.9% of patients on Esomeprazole, reporting that symptoms improved (P = Ns). Satisfactory relief at day- and night-time symptoms was achieved in 98% of patients receiving Rabeprazole and 81.4% of patients receiving Esomeprazole. Adverse events were comparable in both groups (P = Ns).

Rabeprazole 10 mg has a similar efficacy and safety profile in patients with NERD as Esomeprazole 20 mg further study is necessary to investigate whether the small differences between the two drugs seen in this study are related to the improved pharmacodynamic properties of Rabeprazole. Both drugs were well tolerated.

**Key Words:** Non-erosive esophageal reflux disease -New proton pump inhibitors

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41,5

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, %83,3 , %85,7  
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(18)

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## Conservative Treatments for Haemorrhoids in Early Stages

**Hala abdalhameed alghawi**

**Dept. of Surgery, Faculty of Medicine**

**Supervised by: Prof.Yahya.al khayat**

Hemorrhoids are disturbing and embarrassing problem to patients. Due to the bad reputation that is connected with haemorrhoidectomy, mainly the severe pain that accompanies this procedure, and long periods out of work, I initiated these forms of treatment in this prospective randomized clinical trial, to overcome these problems.

Most our patients complained of constipation, low roughage diet and women had multiple pregnancies, Hereditary was occasionally evident. Low physical activities were also very evident mainly in women.

To treat all internal piles as an outpatient procedure. And consequently evaluate the efficiency of the three techniques (sclerotherapy, infra-red coagulation and rubber band ligation).

33 patients entered this study, fell into three groups:

group-A:-Treated by injecting 5% phenol in almond oil, the number of patients in this group was 18

group -B-: Treated by rubber band ligation, the number of patients in this group was 15.

The mean age was 41,5 in group A, 45 in group B

Success rate was in group A 85,7% for first stage, 83,3% for stage II and 60% for early stage III.

In group B 100% for stage I, 75% for stage II and 66,6% for stage III.

We conclude that sclerotherapy, and rubber band ligation were all effective methods in treating internal piles. Sclerotherapy was effective in stage I, and rubber band ligation gave better results in stage III.

**Key words :** haemorrhoids. Band ligation. sclerotherapy



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(ALT,AST)

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%21.51 .

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ALT :(

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## Chronic Hepatitis: Causes, Correlation between Histological Classification and Hepatic Enzymes ( ALT, AST)

**Rolan Mahassen**

**Dept. Of Pathology, Faculty of Medicine**

**Supervised by: Prof. Mohammad Eyad Chatty & Dr. Fawza Mounem**

chronic hepatitis is a worldwide health problem. The aim of this study is to identify the importance of the biopsy for histological classification (stage and grade) and putting causes of chronic hepatitis, then to study the relation between histological activity and hepatic enzymes (ALT,AST).

The liver biopsies were studied by light microscope (with Haematoxylin & Eosin and special stains) between 1/1/2003 up to 31/8/ 2005 in the department of pathology in AL Assad university hospital. The number of cases was 101 and the data were available according to causes, age, sex (in all cases) and stage, grade ( in 98 cases).The results were compared with the levels of AST and ALT (abnormal if = 40 U/L or above).

Most of cases were in make (74.25%) with predominance in fifth and sixth decades. The common cause was HBV (45.54%), then HCV (29.73%). The levels of ALT, AST were normal despite of activity of inflammation by 29.11% and 50.66% respectively. Also they were normal and the biopsies revealed stage of fibrosis by 21.51% and 38.66% respectively.

Comparison with previous study in our department, we noticed increasing in the ratio of male/female and in fifth and sixth decades (medical work, alcohol abuse...). The rate of chronic hepatitis with unknown factor decreased in our study ( because the diagnose of HCV increased). Our study confirms making biopsies of liver in cases of chronic hepatitis (regardless of levels of ALT.AST) for management the patient.

**Key words:**

- Chronic hepatitis
- Hepatic enzymes
- Histological classification

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**SEM**

**Er:YAG**

-( )

Er:YAG

Er:YAG

160-120

/40/ /160/

180

( 80)

( 80)

10/ 180-160-140-:120

Er:YAG

- Er:YAG 94.2 ( )

- Laser Power -SEM

. Morphological Changes

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## Effect of an Er:YAG Laser on Periodontally Involved Root Surfaces: an In vivo and Vitro SEM Comparison

**Kholoud Essali**

**Dept. of Periodontics, Faculty of Dentistry**

**Supervised by: Prof. Sharif Alashkar**

The recently introduced Er:YAG laser seems to be a promising alternative in periodontal treatment due to its thermo – mechanical

ablation mechanism. The present study attempted to compare the effects of an Er:YAG laser on periodontally involved root surfaces at different power settings in vivo and in vitro using scanning electron microscopic (SEM) observations.

Forty single rooted teeth (160 surfaces), with advanced periodontal destruction that were scheduled for extraction, were divided into two groups of 80 each which were treated in vivo (group A) and immediately after extraction in vitro (group B) using one of the following energy settings:

120, 140, 160, and 180 mJ at 10 Hz.

The morphological changes on the treated root surfaces were evaluated using scanning electron microscopic (SEM) observation to assess the laser induced ultra structural changes. The severity of the changes was evaluated according to an arbitrary scale in 7 degrees (1-7).

Untreated peripheral areas served as control.

All surfaces in vitro (group B) showed visible crater-like defects with notched borders. The depth of the surface damages varied with the power applied and was localized into cementum at energy settings of 120-160 mJ but also reached dentine at 180 mJ. Compared to that, all in vivo (group A) treated surfaces showed a homogeneous and smooth root surface morphology. The surface alterations were not related to the used energy setting. The results of this study showed that the clinical use of Er:YAG laser resulted in smooth root surface morphology, even at higher energy settings.

**Key words:**

Laser Er:YAG- SEM scanning electron microscopic- Laser Power- Morphological Changes

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## **Improving the Retention for Complete Dentures that Covers Low-Elastic Tissues**

**Mahmoud Mahmoud**

**Dept. of Prosthodontics, Faculty of Dentistry**

**Supervised by: Prof..Iyad Al Shaarani**

detection the elastic of oral mucosa according to Haus classification.

Improvement retention of removable denture supported by low-elastic tissue.

The sample of research was 20 edentulous patient (upper edentulous) .

Taking into consideration anatomical and functional structure .

Gnathometer (for measuring retention), selofan paper , plisher (for measuring elastic of oral mucosa).

The research was carried out in Department of prosthodontics – Damascus University for 3 month.

Optical observation for covering soft tissue reveal apparent improvement after removing selofan paper, retention of denture increased after removing selofan paper (clinical and in vitro).

The oral mucosa which supports the dentures and the retention of dentures improved after removing foils due to relaying the area inside dentures.

**Key Words:**

retention - low-elastic tissues- negative relief