MEDICINE ELSEWHERE

Prepared by

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Knutsson M, Kidd-Ljunggren K. Urine from chronic hepatitis B virus carriers; Implications for infectivity. J Med Virol 2000 60:17-20.

As we know horizontal transmission of hepatitis B virus (HBV) without apparent sexual or parenteral exposure is common in hyperendemic areas. In most cases, the route of transmission is unknown. Vertical, sexual and parenteral transmission of HBV has been well documented, however horizontal transmission without apparent parenteral exposure is a common mode of acquisition among very small and pre-adolescent children. This route applies especially to high endemicity settings. In areas of low HBVendemicity, horizontal transmission may explain secondary cases of HBV among households and day care centers that have a persistant carrier.

Hepatitis B surface antigen (HbsAg) is not an optimal infectivity indicator because it may be found in the absence of circulating virions. Detection of HBV DNA in serum indicates active viral replication and is therefore a more relevant infectivity marker.

Studies using molecular hybridisation techniques have shown HBV DNA to be present in semen, saliva and urine. According to these studies 55,60 % of hepatitis Be antigen (HbeAg) positive chronic carriers were HBV DNA positive in urine.

The authors have tried to determine the proportion of chronic carriers who have HBV DNA in urine, detectable by PCR, and compare the levels of HBV DNA in serum and urine by a semiquantitative PCR.

The authors studied the serum and urine samples from 56 chronic HbsAg carriers attending the department of infectious diseases, University Hospital of Lund. Study population consisted of 32 men and 24 women with a median age of 24 years. 34 patients were anti-HBe positive and 22 were HbeAg positive. None of the patients had any known renal disease or had received antiviral treatment. The HBV genotypes were determined from 32 of the 56 carriers by standard phylogenetic analysis of amplified sequences. Most patients carried genotype D (16 patients), and E (3 patients).

Samples of serum and urine were collected on the same day and stored at -20°C. HBV markers in serum were tested with commercial test kits. Specimens of urine were tested for the presence of blood.

The serum alanine aminotransferase (ALT) values were available from a number of patients.

HBV DNA was detected in serum from 46 of 56 HbsAg- positive patients; Serum samples from all 22 Hbe Ag - positive patients and from 24 of the 34 anti-Hbe positive patients, were HBV DNA positive. Urine samples from 28 of the 46 patients with HBV DNA in their serum were HBV DNA positive (61%). Twenty of these patients were HbeAg positive.

All patients with HBV DNA in their urine also had positive results in the corresponding serum samples.

There was no correlation between HBV genotype and PCR positivity in urine.

One HBV-DNA positive urine sample contained detectable but minute amounts of blood.

ALT levels were avaliable from 18 of the patients with HBV-DNA detectable in urine. Nine were within the normal range and nine had elevated levels.

There was a significant domination of female patients among those with HBV DNA-posative urine specimens.

HBV-DNA was found in the urine of 67% of the women, compared with 37% of the men ($p<0.05$).

This study was to investigate the presence of HBV DNA in urine from chronic HBsAg carriers. The detection of HBV DNA in urine may indicate the presence of virus particles and hence that urine is a potential source of infection. Using PCR, HBV-DNA was detected in the urine of 50% of the patients.

The results of end point titration indicate that decetable levels of virus in urine are approximately 10^3 -fold less than those found simultaneously in serum.

The authors conclude that a high proportion of patients chronically infected with HBV had HBV DNA detectable by PCR in their urine. The results indicate that urine from all HBsAg carriers could harbour infectious HBV, and not just urine from HBeAg-positive patients.

These findings might explain the horizontal transsmission of HBV among small children and must be considered seriously in matters of hospital hygene and the risk of nasocomial transmission.

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Zhu J, Qugyumi AA, Norman JE, Costello R, Csako G, Epstein SE. The possible role of hepatitis A virus in the pathogenesis of atherosclerosis. J Infect Dis 2000; 182:1583-1587.

In this study, the possible association between HAV infection and coronary artery disease was investigated.

A lot of evidence now exists, indicating that inflammation plays an important role in atherogenesis. The results of epidemiological studies suggest possible roles of pathogens as cytomegalovirus (CMV), Chlamydia pneumoniae, Helicobacter pylori and Herpes simplex virus (HSV).

An important shared characteristic of the infectious agents is implicated in the development of atherosclerosis: they are all intracellular pathogens and can establish long-term, persistent infection or induce long lasting effects, such as persistant circulating antibodies. This fact led the investigators to examine the hypothesis that HAV would be a reasonable condidate pathogen for the pathogenesis of atherosclerosis.

Three hundred and ninety-one individuals entered the study. The study cohort consisted of individuals who were referred for coronary angiography because of chest pain or non invasive tests compatible with myocardial ischemia. Atherosclerosis defined by the authors >50% stenosis of >1 major coronary artery by coronary angiography. Patients with significant valvular heart disease or non-atherosclerotic cardiomyopathy were exluded. No patient admitted to study had had a myocardial infarction within the previous 3 months.

Risk factors analyseds for CAD (coronary artery disease) include age, race, male sex, cigarette smoking, diabetes, hypercholesterolemia, hypertention, elevated CRP levels, seropositive status to HAV, and occupational status.

Serum samples obtained from patinets were frozen at-80°C alliquots and thawed when needed for the detection of serum IgG antibodies to HAV by an EIA and to CMV, C. Pneumoniae, Helicobacter pylori HSV1-2 by commercially avaliable ELISA. CRP levels in serum samples of patients were detected.

Three hundred and ninety-one subjects were studied. Their ages ranged from 30-81 years. There were 244 (62%) men, 284 (73%) whites and 248 (63%) with angiographic evidence of CAD. Of the patients with CAD, 194 (78%) of 248 had CRP levels >0,5 mg/dL compared with 96 (67%) of the 143 patients without CAD($p=.015$). With the exceptions of smoking and hypertension, traditional CAD risk factors (age, male sex, diabetes and hypercholesterolemia) and elevated CRP levels (>0,5 mg/dL) were significantly associated with the risk of CAD.

In this study cohort, 205 (52%) of the 391 subjects had IgG antibodies directed against HAV. The prevalence of CAD was 74% (15/205) in the HAV seropositive patients and 52% (97/186) in the HAV seronegative patients. The increased prevalence of CAD in patients with HAV seropositivity was significant (p<.0001).

Seropositivity was not associated with male sex, smoking, diabetes or hypercholesterolemia, however, as expected, age and race were significantly associated with HAV infection.

It is interestig that HAV infection was significantly associated with hypertension in this study. However on multivariate analysis HAV was associated with CAD independently of hypertension (p=.003).

This study showed that occupational status was not an important factor for the devolopement of CAD.

They also found that ethnic differences did not affect their findings; HAV seropositivity was still an independent determinant of CAD risk.

Mean CRP levels were higher in HAV seropositive than in HAV seronegative individuals. Male sex, smoking, hypercholesterolemia, hypertension and infection were also associated with increased levels of CRP.

The authors analysed two subgroups of patients (one group with CRP levels at or below the median value [0,82 mg/dL], and the other with CRP values above the median) to determine whether HAV infection was a risk factor for CAD independent of CRP levels. They found taht this was true. The group with low CRP levels exhibited a greater effect of HAV seropositivity for CAD.

The results of the present investigation demontrate that anti-HAV IgG antibodies are independently associated with both CAD and elevated CRP levels. Because elvated CRP levels are believed to reflect a chronic, persistent inflammatory state and are associated with an increased rate of cardiovascular events, the data they obtained suggest that, if, in fact the asociation they have demonstrated reflects a casual role of HAV infectionin atherogenesis, one of the likely mechanisms is through stimulation of inflammatory responses.

The observations that anti-HAV antibodies are associated with CAD prevalence and with elevated CRP levels, raise the possibility that HAV can establish a chronic, persistant infection that leads to chronic inflammation with biologic consequences.

In summary, these results are compatible with the hypothesis that prior HAV infection is associated with the developement of CAD.

MEETINGS

22 - 26 July, 2001, Sun City, South Africa

XIth International Symposium on Morphological Sciences

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3 - 7 September, 2001, Edirne, Turkey

VIth National Anatomy Congress

Contact: Department of Anatomy, School of Medicine,
Trakya University, Güllapoğlu Campus 22030 Edirne.
e.mail: anatimo@trakya.edu.tr
web: http://edirne2001.trakya.edu.tr

✳ ✳ ✳

11 - 13 September, 2001, Eskişehir, Turkey

7th Public Health Days Geriatrics and Chronic Degenerative Diseases

Contact: Orhangazi University, Faculty of Medicine Department of Public Health
Tel. No and Fax No: 0 222 229 30 49
E-Mail: halks@ogu.edu.tr

✳ ✳ ✳

27 - 28 September, 2001, Istanbul, Turkey

Symposium on Health and Hospital Manageiment Organized by Marmara University Faculty of Health Education

Contact: Semor, Seminer Organizasyon, Danışmanlık ve Turizm A.Ş.,
Tel.: 0 216 330 52 95 - 330 52 96
E-Mail: Istanbul@semor.com.tr

✳ ✳ ✳

4 - 8 October, 2001, Istanbul, Turkey

2nd International Meeting on Free Radicals in Health and Disease The Role of Oxidants and Antioxidants in the Regulation of Chronic Disease

Contact: Associate Professor Goncagül Haklar, Department of Biochemistry, School of Medicine,
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Web: http/www.sraad.org

ANNOUNCEMENT

Marmara Medical Journal is happy to announce the winner of the 2000 "Young Scientist" award:

Çağla Ayhan, M.D.

Department of Physiology, School of Medicine, Marmara University, Istanbul for the excellent work on:

"The Influence of Altered thyroid state on gastrointestinal motility in rats."

THE INFLUENCE OF ALTERED THYROID STATE ON GASTROINTESTINAL MOTILITY IN RATS

Çağla Ayhan, M.D. / Salah Ghandour, M.D. / Levhi Akın, M.D.
Ahmet Karadağ, M.D. / Berrak Ç. Yeğen, M.D.
Marmara Med J 2000;2:64-69.

ABSTRACT

Objective: Gastrointestinal symptoms frequently accompany thyroid dysfunction. Previous reports on the relationship between the thyroid status and the gut have conflicting results regarding gastric emptying and only a few experimental studies on colonic motility are present. This study was therefore designed to examine further the effects of changing thyroid hormone status on gastric emptying and to evaluate small intestinal and colonic motility in experimental hypo/hyperthyroidism in the rat.

Methods: Wistar-Albino rats (220-280 g) of both sexes were randomly treated with either Propylthiouracil (20 mg/kg/day, ip, 2 weeks; hypothyroid group) or T3 (1mg/kg/day, ip, 7 days; hypertyroid group). Evaluation for daily food intake, gastric emptying, intestinal transit and colonic motility was performed.

Results: Daily food intake, fecal pellet number and gastric emptying rate were significantly reduced in hypothyroid rats. Both the daily stool volume and the number of fecal pellets were significantly higher in the hyperthyroid rats, whereas intestinal transit in 30 minutes remained unchanged both in the hyperthyoid and hypothyroid rats compared to control group.

Conclusion: The data from our experiments indicate that deviations from the normal euthyroid status in either direction principally affects colonic motility. Hypothyroidism seems to act in a broader spectrum, suggesting an overall inhibition in the gut motility.

ANSWER TO PHOTO QUIZ

Isolated Cilioretinal Artery Occlusion

A cilioretinal artery exists in about 30 % of individuals. It is a vessel that perfuses the retina and is derived directly from posterior circulation rather than from the central retinal artery. Such vessels are usually observed to emanate from the temporal disc margin. Cilioretinal artery obstruction exists in 3 clinical variations;

- Isolated
- Cilioretinal artery obstruction combined with central retinal vein obstruction
- Cilioretinal artery obstruction combined with ischemic optic neuropathy

Isolated cilioretinal artery obstruction, which is the case here, usually occurs in younger patients in the setting of collagen vascular disorders. They carry a good visual prognosis, 90 % are left with 5/10 or better vision.

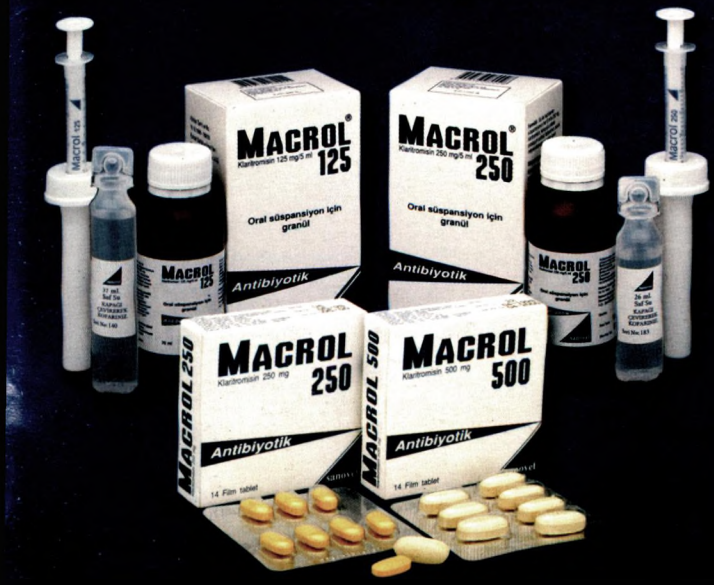
On visual examination of an arterioler obstruction we see an ischemic whitening of the retina in the territory of the obstructed artery.

MACROL

Klaritromisin

250-500 mg Tablet
125-250 mg/5ml Süsp.

Makro Güç...
Makro Çözüm...



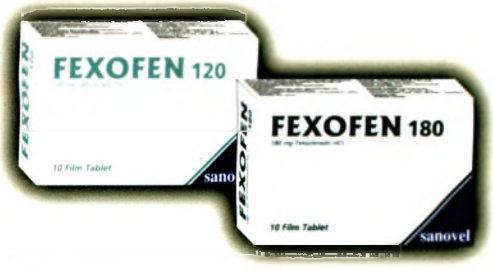
Solunum Sistemi Enfeksiyonlarının Tedavisinde Yüksek Klinik İyileşme ve Düşük Yan Etki İnsidansı ile Etkin Çözüm...

MACROL KISA ÜRÜN BİLGİSİ:
FORMÜLÜ: Her film tablet 250-500 mg, her 5 ml süspansiyon 125-250 mg Klaritromisin içerir. **Yardımcı Maddeler:** Boyar Madde (E171, E104, E102), Sodyum Sakkarin, Vanilin. **ENDİKASYONLARI:** Klaritromisin, duyarlı mikroorganizma suşlarının neden olduğu aşağıda belirtilen enfeksiyonların tedavisinde endikedir. **Üst solunum yolu enfeksiyonları:** Streptococcus pyogenes'in sebep olduğu faranjit/tonsilit; Streptococcus pneumoniae'nin sebep olduğu akut maksiller sinüzit **Alt solunum yolu enfeksiyonları:** Haemophilus influenzae, Moraxella catarrhalis veya Streptococcus pneumoniae'nin sebep olduğu kronik bronşitin akut bakteriyel alevlenmeleri; Mycoplasma pneumoniae veya Streptococcus pneumoniae'nin sebep olduğu pnömoni. Staphylococcus aureus veya Streptococcus pyogenes'e bağlı komplike olmayan deri ve yumuşak doku enfeksiyonları (abseler genellikle cerrahi drenaj gerektirir.) Klaritromisin, Mycobacterium avium veya Mycobacterium intracellulare'ya bağlı yaygın veya lokal mikobakteriyel enfeksiyonların ve Mycobacterium chelonae, Mycobacterium fortuitum ve Mycobacterium kansasii'ye bağlı lokal enfeksiyonların tedavisinde etkilidir. Klaritromisin, duodenal ülserli hastalarda asit süpresyonunun varlığında (bir proton pompa inhibitor ile birlikte kullanılması durumunda) H.pylori eradikasyonu için endikedir. **KONTRENDİKASYONLARI:** Klaritromisin, makrolid antibiyotiklere karşı aşırı duyarlılığı olan hastalarda kontrendikedir. Klaritromisin, sisaprid ve timozid gibi ilaçlarla beraber kullanılmamalıdır. **YAN ETKİLER / ADVERS ETKİLER:** Klinik çalışmalarda gözlenen yan etkilerin çoğunluğu hafif ve geçici türde olup, klasik makrolidlere göre gastrointestinal yan etkilere daha az rastlanmaktadır. İlaca bağlı yan etkilerden dolayı tedaviyi bırakan hastalar %3'den daha azdır. Gözlenen yan etkilerin çoğu gastroentestinal sistemle ilgili olup diyare, kusma, abdominal ağrı, dispepsi ve bulantıdır **KULLANIM ŞEKLİ VE DOZ:** Doktor tarafından başka bir şekilde önerilmediği taktirde Yetişkinlerde: Üst Solunum Yolu Enfeksiyonlarında günde iki kez 250-500 mg 10-14 gün tedavi süresince, Alt Solunum Yolları Enfeksiyonlarında günde iki kez 250-500 mg 7-14 gün tedavi süresince, komplike olmayan Deri ve Yumuşak Doku Enfeksiyonlarında günde iki kez 250 mg 7-14 gün tedavi süresince kullanılabilir. **TİCARİ TAKDİM ŞEKLİ VE AMBALAJ MUHTEVASI:** 250-500 mg 14 film tablet, 125 mg/5 ml 70 ml süspansiyon, 250 mg/5 ml 50 ml süspansiyon. **SAKLAMA KOŞULLARI:** 30 °C altında oda sıcaklığında, nemsiz bir yerde ışıktan koruyarak saklayınız. REÇETELİ SATILIR -Doktorlara danışmadan kullanılmamalıdır. -Kullanmadan önce prospektüsü okuyunuz. -Çocukların ulaşamayacakları yerlerde ve ambalajında saklayınız. **Ruhsat Tarihi-No:18.08.1997-184/35-36** Macrol 250 mg Tablet Perakende Satış Fiyatı: 10.159.000 -TL. Macrol 500 mg Tablet Perakende Satış Fiyatı: 20.316.000 -TL. Macrol 125 mg/5ml 70ml Süspansiyon Perakende Satış Fiyatı: 7.522.000 - TL., Macrol 250 mg/5ml 50ml Süspansiyon Perakende Satış Fiyatı: 8.646.000 - TL. (KDV Dahil Ocak 2001) **Ruhsat Sahibi ve İmal Yeri: SANOVEL İLAÇ SAN. VE TİC. A.Ş.** Kazım Orbay Cad. No: 98 Şişli / İSTANBUL

FEXOFEN

TÜM ALLERJENLER

TEK NOKTADA BİRLEŞİRSE TEK ÇÖZÜM



- **Allerjik Rinit**
- **Kronik İdyopatik Ürtiker**
- **Diğer Allerjik Rahatsızlıklar**

FEXOFEN 120 mg ve 180 mg FİLM TABLET
FORMÜLÜ: Her film tablet 120 mg ve 180 mg Feksofenadin HCl içerir.Boyar maddeler: Kırmızı demir oksit, titanyum dioksit. FARMAKOLOJİK ÖZELLİKLERİ: Feksofenadin yüksek emniyet profiline sahip spesifik etkili bir Histamin-H1 reseptör antagonistidir. Etkisini selektif olarak periferal H1 reseptörlerini bloke ederek gösterir. Tedavi dozlarında antikolinerjik, antidopaminerjik, 1-adrenerjik reseptörler üzerinde bloke edici etkileri yoktur. Miyokardiyal hücrelerede potasyum kanalını bloke etmediği için tavsiye edilen tedavi dozlarının üstünde bile QT aralığı uzaması ve kardiyak aritmi gibi kardiyotoksik etkilere yol açmaz. Feksofenadin kan-beyin bariyerini geçemediğinden dolayı, santral sinir sistemindeki H1 reseptörleri ile etkileşmez. Feksofenadin oral olarak alındıktan sonra gastrointestinal sistemden hızla absorbe olur ve yaklaşık 2.6 saat içinde doruk plazma konsantrasyonlarına ulaşır. SSağlıklı gönüllülerde günde 2 defa 60 mg'lik oral dozun uygulanmasını takiben denge düzeyindeki ortalama eliminasyon yarılanma ömrü yaklaşık 14.4 saattir. Yaşlılarda (>65) eliminasyon yarılanma ömrü değişmemektedir. Feksofenadin %60-70 oranında plazma proteinlerine bağlanır. Tek oral dozun yaklaşık %5'i metabolize edilir. Bir oral dozun yaklaşık %80'i feçes ile %11'i ise idrarla vücuttan atılır. ENDİKASYONLARI: Fexofen 120 mg, mevsimsel allerjik rinitin semptomatik tedavisinde endikedir. Fexofen 180 mg, kronik idiopatik ürtikerin semptomatik tedavisinde endikedir. KONTRENDİKASYONLARI: Feksofenadin'e veya yardımcı maddelerden herhangi birine karşı aşırı duyarlılığı olan hastalarda kontrendikedir. UYARILAR/ÖNLEMLER:12 yaşından küçük çocuklarda Feksofenadin'in kullanımına dair etkinlik ve emniyeti henüz saptanamamıştır. Hepatik ve renal yetmezlik durumlarında ve yaşlılarda (65 yaş üstü) herhangi bir doz ayarlaması gerekli değildir.Araç ve makine kullanımı üzerindeki etkileri: Farmakodinamik profil ve bildirilen advers etkiler bazında, Feksofenadin'in araç ve makine kullanma yeteneği üzerinde herhangi bir etki oluşturması beklenmez.Gebelik ve laktasyonda kullanımı: Feksofenadin'in ve emziren annelerde etki ve emniyetine adır çalışmalar yetersizdir. Bu nedenle ancak doktorun zorunlu gördüğü hallerde, fayda ve zarar değerlendirmesi yapıldıktan sonra kullanılabilir. YAN ETKİLER / ADVERS ETKİLER: Tedavi dozlarında yapılan kontrollü klinik çalışmalarda gözlenen yan etkiler hafif şiddette ve geçici olup, plasebo verilen hastalarda gözlenen yan etkilerden farklı bulunmamıştır. BEKLENMEYEN BİR ETKİ GÖRÜLDÜĞÜNDE DOKTORUNUZA BAŞVURUNUZ. İLAÇ ETKİLEŞİMLERİ: Antasitler: Feksofenadin'in etkinliğini değiştirebilir. Bu nedenle alüminyum hidroksit veya magnezyum hidroksit içeren antasitler alındıktan 2 saat sonra feksofenadin alınmalıdır. KULLANIM ŞEKLİ VE DOZU: Doktor tarafından başka şekilde önerilmediği taktirde:Erişkinlerde ve 12 yaşın üstündeki çocuklarda tavsiye edilen doz: Günde 1 defa (Tercihan sabahları) 120-180 mg dır. DOZ AŞIMI VE TEDAVİSİ: Herhangi bir aşırı doz durumunda semptomatik ve destekleyici tedavi uygulanmalıdır. Hemodiyaliz Feksofenadin'in kandan uzaklaştırılmasında etkili değildir. SAKLAMA KOŞULLARI: 30 C'nin altındaki oda sıcaklığında saklayınız. TİCARİ TAKDİM ŞEKLİ VE AMBALAJ MUHTEVASI:10 film tabletlik blister ambalajlarda. REÇETE İLE SATILIR.

Adilna Sanovel İlaç San. ve Tic. A.Ş.
Büyükdere Cad. Dereboyu Sok. Zağra İş Merkezi C Blok Kat: 2 Maslak/İstanbul
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