Bull Group Int Rech Sci Stomatol et Odontol - Vol 38 n° 1-2, 1995

XXXVIII^{e} Congrès du GIRSO Thessaloniki - Grèce 19-22 mai 1994

Suppléments - Abstracts

J. DOUTSOS
Responsible of the National Center Reference of Aids of Northern Greece

Laboratory and epidemiological research of the H.I.V. infection.

The universal spread of the H.I.V. infection does not cause any surprise to the specialists who work on this field.

The initial lack of evidence for the infectivity of the virus and the correlation of the disease caused by it with certain groups of population resulted to the spread of the virus.

The social racism toward the victims of the virus, with all consequences, had and has a negative result in finding a solution to the problem.

After ten years, the ratio between men and women tends to be equal and the heterosexual transmission of the infection increases at the West hemisphere.

The long period required for the appearance of detected antibodies constitutes a negative factor for the rupture of the transmission chain. On the contrary, the progress in clinical management of established opportunistic infections in relatin with the antiretroviral therapy not only lengthen the expected time of life, but also attribute quality to it.

Prevention which can be achieved with the right information and the active participation of all of us, constitutes the most effective weapon against AIDS.

The oral cavity participates in the spreading of the virus when certain conditions coexist.

The attempt to replace the blood examination by that of saliva does not seem to have many supporters, among which are the National Center of Emergency Assistance of Greece.

The fact remains that the oral cavity gives much clinical information needed to observe the course of the infection without overlooking the fact that some situations, such as cases of glossitis, can constitute a worthy initial diagnostic indicator.

P. PAPANAGIOTOU, Professor of Stomatology
I. KAYAVIS, Associate Professor of Stomatology

AIDS and Dentistry.

The AIDS is implicated with Dentistry because it is not only sexually transmitted but also with blood and blood products.

The special interest of AIDS for Dentists is that there are a number of clinical signs in the oral cavity in early stages of the disease or in its full blown such as fungal, viral or bacterial infections, neoplasms etc.

The routine exposure of practitioners and auxiliaries to a multitude of bacterial, viral and other microbial pathogens led to development of recommended infection control precautions initially directed at preventing hepatitis B virus transmission. The same basic protocol is recommended for AIDS in order to prevent the spread of the disease and considering the lack of adequate treatment.

The profylactic procedures concern the stuff of the dental surgery, sterilization of the instruments used in all dental work and personal protection.

The sufficient knowledge of the disease and the prophylaxis can help stopping the spread of the disease and protecting patients and personnel from infection.

J. ELEFTHERIADIS*, A. TSIRLIS**, N. PARISIS**
Laboratory of Radiology and Exodontia, Dental School, University of Thessaloniki, Greece.

Surgical Catheterization of Wharton's duct for sialadenography performance.

Conventional sialadenography may offer valuable information for some of the aflictions involving the salivary glands which is not possible to be gained with any other imaging modality. One of the main reasons of sialogram failure is the inability to locate and canulate the salivary duct. This happens more often in the case of Wharton's duct catheterization.

For these few cases, we suggest the Wharton's duct surgical catheterization which is easily done from the part of oral and maxillofacial radiologist and is very well tolerable from the part of the patient, as his postsurgical course is satisfactory.

This technique is placed into the spectrum of interventional techniques like fine needle aspiration biopsy assisted by ultrasound, computerized tomography or magnetic resonance imaging, as well as like embolization techniques, which are of wide acceptance the last years in medical and oral and maxillofacial radiology.

I. EMMANOUIL, DDS. PhD.
Dental School, Aristotelian University of Thessaloniki, Greece.

Study of the interface between acrylic teeth and the base of the full denture by scanning electron microscopy.

Acrylic teeth many times get loose and broke from the base of the full denture. This is a problem for the dentist and the patient and it is very unpleasant. We try how to increase the ability of the connection between acrylic teeth and the base of the full denture.

We use acrylic base resin thermopolymerized and acrylic teeth from different companies. We share in two groups our study.
1. We don't grind acrylic teeth and we thermopolymerised them with the base.
2. We grind acrylic teeth and thermopolymerized them with the base.
From our study we conclude:
1. Teeth which were gring tied better with the base of the full Dentures and they have less problems in the leakage between acrylic teeth and base of the full Denture. As a conclusion it is better to grind teeth before the thermopolymerization.

X. HATZISEVASTU-LUKIDU[1], V. KASINALI[2], A. MPULI-KALAHANI[1], S. STEFANIDIS[2], T. HARUAT[1], K. KARNUTSOS[2], K. MALAKA-ZAFIRIOU[1]
[1] Genetics Laboratory, A Pediatric Clinic, Aristotle University of Thessaloniki.
[2] Dental Department, Ippokration Regional Hospital, Thessaloniki.

Stomatologic survey of non-institutionalised children and adolescents with Down's syndrome.

An increased effort to provide health services to patients with Down's syndrome is made during the last twenty years. Our project is in the frame of this effort. The aim of this paper is the prevention, diagnosis and cure of disease in the oral cavity, in non-institutionalised patients with Down's syndrome. Twenty three patients (15 males and 8 females) with trisomy 21 were studied. Age ranged from 8 to 26 years. Clinical examination based on a specially designed protocol was performed. Our findings were:
1) *Morphological disturbances of the oral cavity and tongue:* Increased vertical dimension of the palate (13/23), Orthodontic disturbances (Class III Angle malocclusion and mandible prognathism in 18 of 23 patients), Scrotal tongue (15/23), Macroglossia (16/23).
2) *Odontogenesis disturbances:* Enamel decalcification (7/23), White spots on the enamel (9/23).
3) *Morphological disturbances of teeth:* Sigmoid notch in the edge of the upper incisors (11/23), Cylindrical shaped teeth (15/23), Cogenital absence of permanent teeth (16/23), Microdontia (15/23).
4) *Gingival inflammation and teeth decay:* Generalised chronic gingivitis (9/23), Periodontal disease (4/23), Caries (3/23), Fillings (2/23).
5) *Delay in eruption of permanent teeth:* (5/23)

In conclusion, our findings concerning the morphological disturbances of the jaws, the teeth and tongue, the deviations in odontogenesis and the condition of the oral health were in accordance to those of other researchers. The parents of the patients were informed concerning our findings, and a comprehensive treatment programm was designed in order to meet the needs of the patients.

A. KOUSI[1], P. THANULIS[2], M. ATHANASIU[1], I. TSATRA[1], S. HIRAKIS[2], K. KARNUTSOS[2],
[1] Sickle cell Unit, A Pediatric Clinic, Aristotle University of Thessaloniki.
[2] Dental Department, Ippokratio Regional Hospital, Thessaloniki.

Roentgenographic findings in the jawbones of children with sickle cell anemia.

Bone lesions in the jaws of patients with sickle cell anemia are a frequent finding. They appear mainly in adults with homozygous sickle cell disease.

The objective of this study was to seek for asymptomatic bone lesions in the jaws of children with sickle cell disease, in order to interfere therapeutically where necessary.

Thirty four children with sickle cell disease (30 with S/b Thal. and 4 with S/S) were studied. Age ranged from 6 to 18 years. For every patient, a clinical examination of the mouth was performed, including pulp vitality electrical test, and an orthopantomogram was taken.

None of the patients presented orthodontic anomalies. Seven patients (20,58%) did not present roentgenographic lesions. 20/34 (58,8%) presented a prominent lamina dura, 14/34 (41,1%) an increased radiolucency of the jawbones and coarsening of the trabecular pattern. Eight patients (23,5%) presented localised areas of increased density, which where interpreted as healed infarcts and finally, 4/34 (11,7%) presented clearly marked radiolucent periapical lesions involving free from decay teeth. In two of the above four cases, the involved teeth did not present pulp vitality signs, and aseptic pulp necrosis due to sickle cell thrombi was diagnosed.

No correlation between age of the patients or gravity of disease with the roentgenographic findings was established.

Vl. MOURMOURAS, Chr. DIMITRIOU, A. NICOLAOU, J. DANIILIDIS

The experience in neoplasms of oropharynx and buccal cavity during the last five years in O.R.L. Clinic of Aristotelian University.

During the last years, 1989-1993, 33 cases of buccal carcinoma and oropharynx have been hospitalized and treated in the O.R.L. Clinic of Aristotelian University of Thessaloniki. The patients were: 24 men an d 9 women, with an average age 61 years (46-85).

The location of the cancer was: in 5 cases cancer of oropharynx, 5 cases tumors of the palate, 1 case cancer of the mandible, 1 case cancer of the lower lip, 4 cases cancer of the tonsils, 1 case carcinoma of the parapharyngeal space and 16 cases carcinoma of the base of the tongue.

We analyzed the histological types of the cancers, their clinical manifestations and treatment.

D. TSOUKALAS*, M. YIANGOU**, G. NOUSIOS*, D. IAKOVIDIS*
* Faculty of Health, Department of Dentistry, Laboratory of Oral Surgery, Dir. Prof. D. Iakovidis, Aristotelian University of Thessaloniki.
** Faculty of Science, Department of Biology, Division of Genetics, Development and Molecular Biology, Aristotelian University of Thessaloniki.

Determination of low level laser irradiation in oral mucosa healing.

Preliminary clinical studies have shown that soft laser irradiation after tooth extraction or oral surgery results in acceleration of oral mucosa healing. However, the mechanism by which soft laser acts remain unknown. In our experiments we have used an AS-Ga (904 nm, 190 Hz) laser to irradiate *in vitro* fibroblasts that isolated from the gums. Our results showed that soft laser irradiation of fibroblasts results in significant increase of collagen production. Maximum production was observed after irradiation for 5 min at 190 Hz. These results suggest that soft laser irradiation-mediated oral mucosa healing may be due, at least in part, in increase of collagen production.

E. PANAGIOTOUNI, A. KARANIKA-KOUMA

Comparative study of heat realease of various cement base materials during their setting.

An ideal cement base material in order to protect the pulpal tissue from several external irritations (microbial factors, mechanical, thermal, galvanic and osmotic irritations) must present the following requirements: to attach or bond to the residual dentin, to be biocompatible, to present suitable physicomechanical, antimicrobial and optical properties, to be color stable, easy to use and rapid to set. Thermal phenomena developed during the mixing and setting are a factor influencing the biocompatibility properties of these materials. Cement base materials are used under various types of filling materials (amalgams, composite resins, gold and porcelain inlays) and placed in contact with the dentin consisted of cut off and opened dentinal tubules. The purpose of this study was to investigate the possible exothermic reaction of these materials and to measure the developing temperatures for a time period from their mixing up to the completion of their setting. We studied the following types of cement base materials: a) Zinc oxide eugenot cement, b) Zinc phosphate cement, c) Zinc polycarboxylate cement, and d) Glass ionomer cement both light and self curing. From the obtained results we observed that ZOE cements developed the lowest temperatures ranging from 32.8° C to 37° C, while Zinc phosphate cements developed the highest temperatures ranging from 44.4° C to 52° C. The other two types of materials Zinc polycarboxylate and Glass ionomer cements developed biocompatible temperatures ranging from 38° C to 40.8° C, which do not cause deteriorations and harms to the pulp.

We concluded that the ZOE cements presented the best thermal behaviour following by Zinc polycarboxylate and Glass ionomer cements.

Hence, these materials can be safely used without causing any pulpal response.

S. SIDIROPOULOU-CHATZIGIANNI, N. TOPOUZELIS, S. KAVVADIA-TSATALA, G. KOLOKITHAS

Angle Class III malocclusion in Northern Greece. An epidemiological study.

Angle Class III malocclusion is a severe dentofacial problem of hereditary character affecting facial esthetics and the function of the orofacial complex. Angle Class III malocclusion is characterized by a convex face profile and a disharmony of jaw relationship in the sagittal face dimension.

The aim of this study was to search and determine the clinical identification of Angle Class II malocclusion. The material of the study consisted of a sample of 8.018 adolescents in Northern Greece, aged 12-14 years from Macedonia and Thrace.

The prevalence of Angle Cl III was found to be 1,21%. This is a low percentage compared to the international standards that range between 0,48% and 12,2%. No significant differences were found between the different geopolitical parts of Greece.

Prevalence was slightly higher in females.

Class III malocclusion presented a high tendency for anterior openbite (59,8%), a high percentage of posterior crossbite (29,9%) and a V-shaped palate. The main dentoalveolar problems of Class III malocclusion were found to be crowding (35,1%), ectopic canines (21,6%) and high percentage of midline deviation (33%).

Class III was characterized by high incidence of disturbed oral functions. It was also found that 94,8% of Class III cases needed orthodontic treatment and that less than the half (32%) were aware and informed of their problem.

A. TSIRLIS, N. DABARAKIS, D. IAKOVIDIS,
N. NATSINAS, I. LAVRENDIADIS

The stimulation of the nerve as a factor of potentiation of the action of the local anesthetic solution. An in vitro electrophysiological study.

The purpose of this experimental study, is to examine and evaluate the contribution of the stimulation of the nerves, on the potency of lidocaine electrophysiologically. 24 sciatic nerves of Wistar rats, after special preparation, were divided in two groups of 12 (group A and B). The nerves were properly placed, in a special nerve bath of two parts, which contained 5 ml of a special composition and stable temperature physiological solution. The nerves were connected with stimulating and recording electrodes, and the recording of the compound action potentials was possible through an electrical stimulator, amplifier and a two channel pulse-recorder. The signal from the pulse-recorder was transferred at 1 min intervals through a special card to a personal computer for storage and further detailed analysis of the recordings.

The nerves of group A received 100 μl of a solution of lidocaine 2% after a continuous for 20 minutes electrical stimulation which also remained after the application of the local anesthetic solution. The nerves of group B received the same volume of lidocaine 2% after a period of 20 minutes without stimulation. These nerves were stimulated when the reduction of the original value of the compound action potential of the nerves of group A was 50%. We recorded the time in minutes of the reduction of the original value by 50% for every nerve after the application of lidocaine. The statistical analysis by the Wilkinson method for independent samples indicated that the action of lidocaine is statistically considerably improved ($P<0.01$) when applied in nerves under stimulation.