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ORAL PRESENTATIONS

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S6-1

Arterial hypertension – a link in cardiac pathology

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Hypertension is the leading cause of early mortality in the world, and reduction of blood pressure can help to reduce that burden.

Hypertension is a major risk factors contributing to cardiovascular disease. The macrovascular complications in patients with longstanding hypertension, include coronary artery disease, myocardial infarction, stroke, congestive heart failure, and peripheral vascular disease. Regarding microvascular complications, hypertension constitutes an important risk factor, especially for nephropathy.

Clinical manifestations of hypertension are varied and nonspecific, long remained asymptomatic, and later to be revealed by a complication.

The initial approach to the management of the hypertension must emphasize weight control, physical activity, and dietary modification. Lifestyle intervention is remarkably effective in the primary prevention of hypertension, but most patients will require specific medications to achieve goals treatment. Ambulatory blood pressure measurement is recommended because of its value in guiding therapy and enhancing adherence to treatment.

Hypertension can have a secondary etiology that leads to an elevation in blood pressure. Chronic kidney is the most common cause of secondary hypertension, but also renovascular disease, pheochromocytoma, coarctation of aorta and renovascular disease. In some conditions, hypertension is potentially curable when the underlying cause is treated.

Hypertension is a risk factor that can be prevented and controlled. Early identification of patients who develop high blood pressure (especially special populations - young people, pregnant women, elderly) allows initiation of appropriate treatment and avoiding the complications.

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S6-1a

A hypertensive patient during second pregnancy - what is the appropriate treatment?

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Hypertensive disorders in pregnancy (chronic hypertension, preeclampsia, gestational hypertension) represent a major cause of materno-fetal morbidity and mortality. Their treatment is controversial, as reduction of blood pressure (BP) might be beneficial for the mother, but it might impair utero-placental perfusion and thereby jeopardize fetal development.

A 36-year-old patient, at her second pregnancy, gestational age of 30 weeks, is evaluated for elevated BP. Her previous pregnancy ended at 39 weeks, following cesarean delivery (2014). The patient suffers from chronic hypertension, with increasing BP values during the first pregnancy (maximum of 170/110 mmHg). She is dyslipidemic, an ex-smoker (2.5 pack-year) and has a family history of cardiovascular disease. She is under treatment with metildopa, 3 tablets daily, since the 6th week of gestation.

The patient has a medical history of Rh incompatibility without immune response at the moment of evaluation (blood type B, Rh -) and Crohn disease (2010, in remission, treated with mesalazine between pregnancies). The current pregnancy is constantly monitored by the gynecologist.

Laboratory tests identify normochromic normocytic anemia, proteinuria 296mg/24h, serum creatinine 0.46mg/dl, ophthalmologic examination within normal range. Echocardiography and ambulatory BP monitoring are repeatedly performed (medium BP values of 146/90, 140/89, 155/94, 147/91 mmHg, maximum of 178/96, 183/97, 205/150, 177/101 mmHg), the treatment being adjusted accordingly up to 6 tablets of metildopa associated with 2 tablets of nifedipine daily.

The aim of this clinical case is to highlight the monitoring and treatment of chronic hypertension during pregnancy, in order to avoid complications such as preeclampsia. The current patient has an additional risk due to Rh incompatibility and Crohn disease.

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S9-3

Is Familial Hypercholesterolemia a problem?

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Dyslipidemia represents a important cardiovascular risk factor.

From daily practice we remarked a particular category of patients with intracranial hypercholesterolemia with a high cardiovascular risk.

From the known forms of familial hypercholesterolemia the heterozygote form(HeFH)is the most common with a prevalence of 1:200-500(Familial Hypercholesterolemia. GeneReviews®[Internet]. Seattle (WA): The University of Washington, Seattle; 1993-2016.2014 Jan 2).

RAE AHT members from all over the country performed a study on 01.10.2015-31.03.2016 to see if this form of hypercholesterolemia is a form that has impact in the population of Romania and in what measure the affections prevalence correlates with the dates for Europe.

The study used a questionnaire as it's base which was administrated to dyslipidemical patients with a lipidic profile effectuated in the past 6 months,with or without a treatment for dyslimidemia, hospitalised or in the evidence of their respective family doctors, in both urban and rural environment, from Arad, Sibiu, Iasi, Braila and Bucharest.

The questionnaire incorporated the clinical criteria recommended by both Med Ped and WHO for the heterozygote (HeFH) form of the familial hypercholesterolemia diagnosis.

Starting from the familial historic, personal historic and also some particular clinical individual characteristics and depending on the LDL-cholesterol value of each interviewed patient, it was given a score from which the heterozygote (HeFH) of the familial hypercholesterolemia was diagnosed.

737 questionnaires had been completed. From these, 265 questionnaires did not have the LDL-cholesterol value specified (this value did not exist in the medical evidence of the interviewed patients.

Results:

-in the studies fragment, HeFH (familial hypercholesterolemia) was diagnosed in a 8.3%, probably HeFH 15.7% , possibly HeFH 22.1% and without HeFH 14.5%.

-in the fragment of patients without specified LDL-cholesterol, HeFH was present at 10.7% (score>8 at 27 patients of 265) -the HeFH prevalence in the total fragment is 11.9%

-there is no difference between the prevalence of this HeFH forms depending on environment, gender or age.

Conclusions:

Approximately 12 out of 100 dyslipidemical patients have HeFH.

LDL-cholesterol was determined at 64% of the dyslipidemical patients. HeFH is a genetic characteristic without notable influence depending on gender, environment or age.

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S9-4

The correlation between hypertension and cerebral vascular accident

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The present paper work wants to analyze the correlation between arterial hypertension with cerebral vascular accidents production because this pathology is extremely spread and it presents high economics-social costs.This risk factors are mostly represented by arterial hypertension, smoking, alcohol, dyslipidemia, diabetes which can be suppressed with medical treatment and lifestyle changes.

Arterial Hypertension is considered one of the most important cardiovascular risk factor. At European level, the arterial hypertensiones prevalence correlated with the vascular accident registered a significant percent.The action plan for implementing the European Strategy to prevent and control the non-communicable diseases 2012-2016 of the Regional Office for Europe of the World Health Organization - WHO is reducing the cardiovascular risk among the population.

The AHT prevalence growth correlated with the cerebral vascular accident has individual and determined causes. The stress exposure is one of the factors of the environment and work place and it can generate length modifications of the arterial tensions value. As AHT is a adults disease, exposure to daily stress with a great weight in the genesis and evolution of this undetected and untreated disease correlating with the cerebral vascular accident.

The statistics reports at the neurological section level of the Emergency Clinical Country Hospital Arad had been analyzed and concluded, confirming the fact that during 2015 there have been 1348 hospitalised patients with cerebral vascular accident from which 11.5% hemorrhagic having uncontrolled arterial hypertension as a risk factor, the rest of 88.5% patients had been hospitalized with ischemic cerebral vascular accident.

The study demonstrates that from the total of 11.5% the arterial hypertension prevalence correlated with hemorrhagic cerebral vascular accident recorded a percent of 78% at noncompliant patients at the antihypertensive treatment. Also, 22% of the patients were not diagnosed with arterial hypertension.

Following the analyzed statistic data at the hospital level demonstrates that the ischemic cerebral vascular accident dominates having dyslipidemia with an anticoagulant treatment as a risk factor.

Key words: correlation, hypertension, prevalence, cerebral vascular accident, uncontrolled, ischemic, hemorrhagic, noncompliant.

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S24-4

Blood pressure circadian pattern in patients with uncontrolled arterial hypertension and Obstructive Sleep Apnea

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Background: Non-dipping profile of blood pressure (BP) was found in 50–85% of patients with obstructive sleep apnea (OSA) and its frequency increases with OSA severity.

Design and methods: We included 137 hypertensive patients with OSA referred to our department for uncontrolled arterial hypertension (HTN) between 2012 and 2015. For each patient we recorded demographic and anthropometric data, parameters obtained through BP monitoring (ABPM/24h using ABPM-05, Meditech device; BP recordings at 15 minutes intervals during daytime and 30 minutes intervals during nighttime) and BP dipping status. Inclusion criteria were uncontrolled HTN in spite of taking at least three antihypertensive drugs at optimal doses, including a diuretic, with mean 24h-BP values ≥130/80 mmHg and OSA diagnosed through respiratory polygraphy. OSA was defined based on apnea-hypopnea index (AHI): 5-14.99/hour (mild OSA), 15-29.99/hour (moderate OSA) and ≥30/hour (severe OSA). Exclusion criteria were presence of secondary causes of HTN, estimated glomerular filtration rate using CKD-EPI study equation < 30 ml/min/1.73m2, poor adherence to antihypertensive drugs and insomnia.

Results: See table. Patients appeared to lose the normal BP circadian pattern as most of them displayed a non-dipping profile. Daytime and nighttime BP values increased as the AHI increased, with both systolic and diastolic BP values being positively correlated with AHI.

Conclusions: Both HTN and OSA have similar risk factors and play an important role in the development of cardiovascular events. Our study highlights the bidirectional relationship between HTN and OSA as well as the importance of 24-hour BP monitoring in patients with OSA, especially for evaluating nighttime circadian profile.

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Parameters	Mild OSA	Moderate OSA	Severe OSA	p (mild OSA vs. severe OSA)
Mean age	63.51 ± 9.76			
No. patients	36	45	56	
Males, %	52.77	62.22	57.14	ns
Mean SBP, mmHg	152.84 ± 13.27	153.1 ± 14.35	159.36 ± 14.27	ns
Mean DBP, mmHg	89.12 ± 9.02	89.39 ± 8.73	92.89 ± 8.99	ns
Daytime SBP, mmHg	153.96 ± 16.66	154.55 ± 16.19	162.67 ± 17.3	ns
Daytime DBP, mmHg	91.47 ± 9.97	92.74 ± 9.48	94.28 ± 10.53	ns
Nighttime SBP, mmHg	151.72 ± 16.23	151.65 ± 15.73	156.05 ± 16.46	ns
Nighttime DBP, mmHg	86.77 ± 10.54	86.04 ± 9.74	91.5 ± 9.55	ns
Non-dipping profile, %	9.48	21.16	27.73	<0.01
Dipping profile, %	13.86	8.02	7.29	<0.01
Reverse dipping profile, %	2.91	3.64	5.83	ns