CHRONIC VENOUS INSUFFICIENCY STAGE V CEAP SECONDARY TO HEREDITARY THROMBOPHILIA AT A YOUNG MAN

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CHRONIC VENOUS INSUFFICIENCY STAGE V CEAP SECONDARY TO HEREDITARY THROMBOPHILIA AT A YOUNG MAN (Abstract): Hereditary thrombophilia is a rare disease of general population, which is responsible for debilitating consequences in severe cases. We present the case of a young male patient whose pathology and symptoms occurred since the age of two, which determined a venous insufficiency stage V with important limitation of the locomotor ability and plenty of complications. The aim of this paper is to draw attention to a disease that sometimes is not diagnosed on a first visit to the doctor.

Keywords: HEREDITARY THROMBOPHILIA, ANTITHROMBIN, FACTOR LEIDEN.

Hereditary thrombophilia is a rare condition that manifests as several abnormalities determined by hereditary thrombophilic factors that can act by reducing the number of inhibitors which can lead to clotting or can increase the number or the function of clotting factors (1, 3, 4, 5, 6).

The factors involved in thrombophilia pathology are: resistance to activated protein C, factor V Leiden, protein C or S deficiency, mutation of the prothrombin gene, anti-thrombin gene, and increase of F VIII a, hyper-homo-cysteinemia.

The antithrombin deficiency of the overall population is around 0.015%-1.00% (1, 2). It is present in 0.5%-7.6% of patients diagnosed with venous thromboembolism. There are three known subtypes of antithrombin deficiency produced by more than 200 different mutations. Most of the mutations are heterozygous; the homozygous type is not life-compatible or determines a severe thrombotic phenotype. From a physiological point of view, antithrombin III has a covalent bond and makes trombone and factors Xa, IXa, XIa and XIIa inactive (1, 3, 5, 6, 7, 9, 10, 11).

Resistance to reactive protein C is given by a mutation at the level of the position 1691 of the factor V Leiden and represents the most frequent thrombophilia cause, being present in more than 40% of the diagnosed cases. Most homozygotes develop at least one thrombotic event throughout life, but have a lower risk than the other factors involved in the pathology of hereditary thrombophilia. In addition, factor V Leiden is met in overall population in a
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A percentage of up to 15%; on patients with recurrent thromboses it is met in up to 50% (1, 2, 4, 6, 7, 9).

The association of more hereditary thrombotic factors tends to lead to an increase of complications and to the influence of the diagnostic.

Virchow’s triad is represented by: injury to the vessel walls, abnormal blood flow and changes in blood structure. Some authors state that about 60% of the patients with hereditary deficiency of antithrombin III develop a thrombotic episode until the age of 60 (1, 2, 3).

CASE PRESENTATION

We are going to present the case of a male patient, aged 28 years, who was admitted to the Cardio-Vascular Clinic of Iasi and accused important pains at the level of the lower right limb, leg ulceration, oedema of inferior legs, asthenia, vertigo, scotomas.

From the hereditary-collateral history it can be identified a familial aggregation of varicose cases located at legs’ level (two sisters, one brother, two cousins on the mother line, grandfather on the mother line, mother) and oesophageal varicose (one brother).

The previous pathological history of the young man, ex-smoker of 5 packs a year highlight the fact that he was diagnosed with abdominal varicose and chronic venous deficiency at the age of 2, with varicose at the level of inferior limbs, varicose ulceration at the level of the right calf and deep thrombophlebitis at the age of 6 and in 2007 he received the diagnostic of congenital malformation of the venous system (fig. 1).

The clinical examination on the apparatus and systems reveal the presence of varicose veins at abdominal level and on the inferior legs, as well as the presence of bilateral calf ulceration of 10/5 cm, additional trophic disorders, ochre dermatitis (fig. 2 a, b, c). The examination of the cardio-vascular system reveals a systolic murmur II/III in the mitral valve.

Paraclinical investigations highlight the seriousness of the chronic venous deficiency. Venous Eco Doppler examination does not highlight a venous flow at the level of the superficial femoral veins and popliteal veins. Venous tracts are slightly visible, having a reduced diameter, echogenous on the inside and lacking in flow. Varicose tracts are visible at the calf and thigh level.

Abdominal ultrasounds reveal a spleen with homogenous structures, 152 mm, and small vascular hilum dilatations.

The performed ultrasound revealed a mitral deficiency of degree I-II Doppler,
tricuspid deficiency degree I Doppler, PSAP – 36 mmHg, small calcified structures, especially at the level of the posterior aortic wall.

![Fig. 2 a, b, c. Varicose veins at abdominal level and on the inferior legs at the age of 28 years.](image)

Following clinical and paraclinical examination, there is a suspicion of hereditary thrombophilia and a genetic examination is requested. It is recommended to perform diagnostic molecular tests. Following analyses, it was observed an antithrombin III deficiency (51.3% compared to standard values, which are between 75-125%), and a factor V Leiden of 49 (the standard value is 60-140%).

Considering anamnestic, clinical and paraclinical data, it is given the diagnosis of hereditary thrombophilia by antithrombin III deficiency and abnormal factor V Leiden. In addition, there are also given the diagnoses of chronic venous deficiency at legs level, class V CEAP, healed varicose ulcer on the bilateral calves, ochre dermatitis on bilateral calves, slight mitral deficiency, slight tricuspid deficiency, aortic atheromatosis.

**DISCUSSION**

Hereditary thrombophilia is a rare disorder which affects patient’s life quality and implies a guarded prognosis for serious cases. What is so particular about this case are the severe changes observed during clinical and paraclinical examination. The management of this disorder requires the cooperation the patient, family, as well as a medical team made of surgeon, radiologist, internist, geneticist and physical therapist.

**REFERENCES**

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EFFECT OF FIBER POST LENGTH AND ADHESIVE STRATEGY ON FRACTURE RESISTANCE OF ENDODONTICALLY TREATED TEETH

When restoring an endodontically treated tooth with excessive loss of tooth structure, a post may be needed to improve the retention of the core build-up material. Post material, design, dimensions, surface roughness and length have been shown to affect fracture resistance and retention. Nowadays, thanks to the optimization of bonding mechanisms of current adhesive composite cements, guidelines regarding post length may be revised. Since fiber posts are bonded within the root canal, their length could perhaps be shortened in light of a less invasive post build-up. The aim of this study was to evaluate the effect of the length of fiber-posts and type of adhesive cement on the fracture resistance of endodontically treated teeth, after fatigue loading. Eighty extracted upper premolars were sectioned at the cemento-enamel junction and endodontically treated. After 24 h of water storage at 37 °C, RelyX Posts (3M-ESPE) were cemented with Panavia F 2.0 (Kuraray) or RelyX Unicem (3M-ESPE). A standardized composite core was built. Specimens were divided into four groups depending on the post–core ratio and submitted to 1,200,000 cycles using a chewing simulator (Willytech). Immediately afterwards, all specimens that survived fatigue loading were fractured using a universal loading device (Micro-tester, Instron). Data were analyzed with ANOVA. Four percent of the specimens failed during fatigue loading. The length of the post into the root affected the fracture resistance, the control group (with the greatest length of the posts) always having the lowest fracture resistance. The type of adhesive cement did not affect the fracture resistance. A prevalence of not-repairable failures was observed in specimens restored with the longest posts, whilst shorter posts led to more repairable failures. The results suggest that shortening the post length and the preservation of more tooth structure, offer the potential for reparability through an in-built fail safe mechanism and may thus reduce the occurrence of catastrophic failures (Zicari F, Van Meerbeek B, Scotti R, Naert I. Effect of fiber post length and adhesive strategy on fracture resistance of endodontically treated teeth after fatigue loading. Journal of Dentistry 2012; 40: 312-321).

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