**Purpose and objectives**: We report an additionally case of uterine myoma.

**Materials and Methods:** A 20 years old female patient was admitted with an giant abdominal tumor which raised in two months with an uterine provenience. This tumor was confirmed by clinical examination, USG and CT-scan.

**Result**: During the surgery, was suspected a malignant uterine tumor. This patient support a total hysterectomy surgery, but histological examination and immunohistochemical analysis proved the benign uterine tumor. Three months after initial diagnosis and surgery the patient is asymptomatic and was scheduled for very close follow up.

**Conclusion:** This case presents an interes with: an early age of the patient, the rapid evolution of tumor process, difficulties in clinical and histological diagnosis, and in the origin and nature of the tumor (benign or malignant).

**Keywords**: Uterine myoma, early age

## 135. HEMOGLOBIN AS NOVEL CARDIOVASCULAR RISK FACTORS IN FATTY LIVER

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**Introduction:** As it affects almost every third individual in the population in the Western world, non-alcoholic fatty liver disease (NAFLD) represents the most common cause of chronic liver disease and the most common cause of liver transplantation. Many metabolic, hemodynamic, hormonal, prothrombotic and pro-inflammatory cardiovascular disease (CVD) risk factors exist. Prior research suggests that hemorheological determinants, including whole blood viscosity, fibrinogen, and hematocrit may be risk factors for ischemic or coronary heart disease. However, the detail relationship between serum hemoglobin concentrations and CVD has not been clearly clarified.

**Purpose and objectives:** We analyzed the potential mechanisms of the association between increased hemoglobin and CVD risk in NAFLD.

**Material and methods**: The materials are collected by searching keywords (nonalcoholic fatty liver disease, cardio vascular diseases risk factors and hemoglobin) from medical database, such as: Pubmed, Medline, Embase, Cochrane Register.

**Results:** The hemoglobin is positively correlated with well-known cardiovascular risk factors such as BMI, blood pressure, fasting glucose, total cholesterol, and smoking status after adjusting for age. The exact mechanisms whereby increased hemoglobin in NAFLD might lead to a higher risk of CVD are unknown, but the main hypothesis is that increased hemoglobin concentrations lead to increased blood viscosity, thereby raising peripheral resistance and reducing blood flow and perfusion to the heart. In turn, a reduction of perfusion has been suggested to accelerate ischemic heart disease. High level of accumulated iron itself can increase cardiovascular risk by oxidative stress and lipid peroxidation. Hemoglobin concentration could affect the cardiovascular system through oxygen supply and blood viscosity. In addition, elevated hematocrit level may activate platelets by releasing adenosine diphosphate. It is essential to investigate this association in the future.

**Conclusions:** The emphasis was on the potential role of increased hemoglobin as a marker of more-severe liver damage and fibrosis in the spectrum of NAFLD. Abnormal rheological characteristics of blood due to increased hemoglobin might represent an additional mechanism that contributes to the development of CVD; these could lead to the development of novel therapeutic approach in CVD prevention.

**Keywords:** Nonalcoholic fatty liver disease, cardio vascular diseases risk factors, hemoglobin