Summary of the Phd Thesis:

Premature separation of the normally inserted placenta – clinical and paraclinical diagnostic, prognostic factors

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Introduction: Abruptio placentae (AP), although an infrequent complication during pregnancy and delivery, accounts for over 20% of maternal mortality, 10-15% of perinatal mortality and motor, sensitive or neuropsychiatric affections in newborns and children. In all clinical, paraclinical and laboratory investigations, apoplectic accidents are mostly unforeseeable and we do not have objective criteria to predict abruptio placentae which affects the mother, fetus and newborn through multiorganic failure. Hysterectomy is often necessary in severe forms of the disease, but the patient is left sterile and can develop chronic affections such as renal failure.

As the etiology of abruptio placentae is still not clarified (premature separation of the normally inserted placenta may occur after trauma, intoxication, rattle snakebites, some jellyfish bites), the most frequent pathological association is hypertension in pregnancy. There also are premature separations of the normally inserted placenta with sudden onset in normal seeming gestations with normal clinic and laboratory examinations.

At present, obstetricians cannot choose the optimal moment for preventive treatment: depleting the uterine cavity. Progress has been made only in intensive care units for mothers and newborns.

Severe forms of abruptio placentae also have legal consequences in case of maternal and/or fetal death; the necessitated hysterectomy suppresses female reproductive function and can affect the newborn causing social impediments and dictating expensive nursing and medication.

Aim of study: The purpose of this study is to analyze risk factors of abruptio placentae, clinical signs and symptoms, laboratory and probation of some predictive tests pointed out by specialized literature (echodoppler parameters and serum value of CA 125).
Material and metod: This paper contains two segments - a retrospective study during 10 years (January 1st, 1992 – December 31, 2001) and a prospective study during 5 years (January 1st, 2002 – December 31, 2006) at The Obstetrics & Gynecology Clinic II Tîrgu-Mures, following risk factors, incidence of abruptio placentae, early diagnosis and proper medical guidance concerning 94 pregnant females with abruptio placentae of 15330 deliveries, based on clinical, paraclinical and laboratory examinations. Premature separation of the normally inserted placenta may occur on any stage of pregnancy, except for pregnancies which stop evolving and the embryo is not eliminated - missed abortions. Abortions during the first and second trimester of pregnancy begin with the separation of placenta and formation of a hematoma in decidua. We also looked for correlations between modified Doppler parameters in uterine artery and increased serum value of CA 125.

Results: In this study, the incidence of abruptio placentae was 0.61%. Hypertension was recorded for a ratio of 59%. The following risk factors for abruptio placentae, with statistical significance have been identified: preeclampsia (p<0.0001), preeclampsia associated with chronic hypertension (p<0.0001), premature labor (p<0.0001), smoking (p=0.0005), multiparity (p=0.0099), mother’s age (18-30 years) (p=0.0408). It has also been noticed a high incidence of pregnancy induced hypertension and abruptio placentae in patients with subchorial bleeding in the first trimester of pregnancy. Chronic hypertension associated with preeclampsia, fetal death or prematurity increases the incidence of abruptio placentae by a factor of 5.1297.

Cases of abruptio placentae present modifications of echodoppler parameters regarding placental circulation probably due to arteriosclerosis. Doppler examination of the uterine artery could stand for screening in unsafe pregnancies. CA 125 values increase after placental expulsion and after abruptio placentae, but there are not any significant increased values before the separation of placenta in pregnancies with risk factors.

Conclusions: Preeclampsia is the most important risk factor for abruptio placentae especially when associated with chronic hypertension, smoking, multiparity, prematurity, mother’s age. Pathological Doppler results in the uterine artery help the practitioner to select the cases at great risk, to watch them closely and to treat them effectively in time. Serial dosages of CA 125 in pregnancies at high risk may help early diagnosis just before the apoplectic accident.