

3. All had full term pregnancies, confirmed by known last menstrual period and early ultrasound report.

They were divided into two groups. The first group (normal or control group) consisted of 15 women who had the following additional criteria:

1. No history of medical problems, smoking or drug intake.
2. No history of obstetrical problems.
3. Their newborns had birth weight within the 10th percentile of the individualized birth weight ratio.

The second group (patients group) consisted of 35 women with pregnancies complicated by intrauterine growth restriction (IUGR) and had the following additional criteria:

1. All had history of risk factors of complicated current pregnancy with pre-eclampsia or history chronic hypertension.
2. Examination of these women revealed inadequate fundal growth.
3. They had an ultrasonographic evidence of (IUGR), deviation from an appropriate growth percentile depending on biparietal diameter, head and abdominal circumferences measurements, with amniotic fluid index of less than 10cm.
4. Their newborns had birth weight less than the 10th percentile of the individualized birth rate ratio.

Tissues Preparation

Placental tissue samples were obtained from the outer area of the maternal surface of the placenta and cut into small pieces (2x2x2 mm) and prefixed in 2.5% Gluteraldehyde in phosphate buffer pH(7.2), the specimens were prepared for semi-thin sections of 0.5- 1 μ m, stained with 1% Methylene blue and special stain consists of Azar II and Basic fuchsin^[9].

Results

In comparison with normal women group (control group) (Figures 1a and b) shows variable changes in cells of placenta were observed including these following changes:

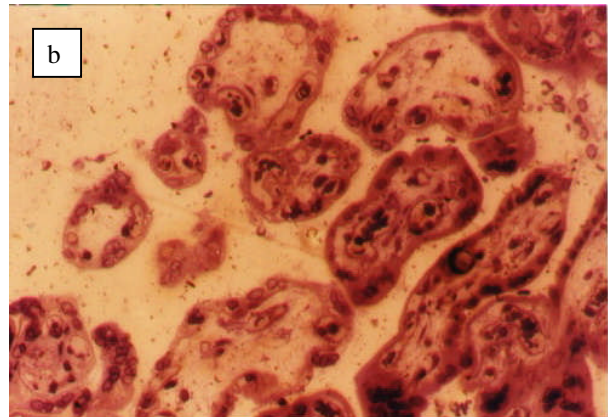
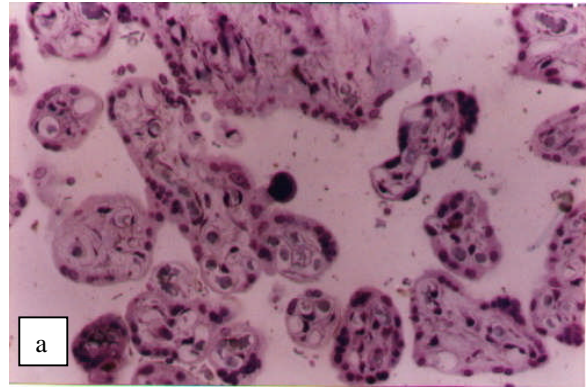


Figure 1a & b: Placental sections from normal women show normal appearance of placental cells.

a: Methylene blue (100X).

b: Basic fuchsin & Azur II (200X).

1. All placental sections of the diseased women have shown an acute type of inflammatory reaction of moderate degree expressed as inflammatory cells infiltration (Figure 2).

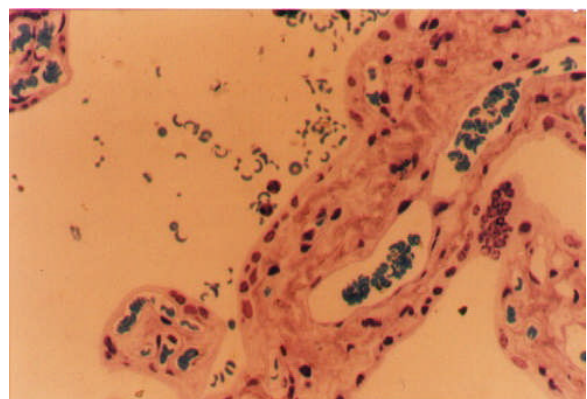


Figure 2: Placental section of hypertensive women shows inflammatory cells.

Basic fuchsin – Azur II (100X).