

SIMPLE AND RAPID CONTROL OF CHORION BIOPSY IN FIRST TRIMESTER ANTENATAL DIAGNOSIS

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Summary: A new endoscopic technique for chorion biopsy is presented. The significance of stereomicroscopy by learning morphological features of chorionic tissue is stressed.

The use of chorionic tissue for direct chromosome analysis, enzyme determination and gene analysis in first trimester of pregnancy has modified the problems related to antenatal diagnosis. Concerning sampling of chorionic villi different methods have been proposed⁽¹⁻⁷⁾. The characteristics of chorionic sample is of great significance for subsequent cytogenetical analysis and we believe a useful control on amount and quality of the sample, to detect decidual contamination, to distinguish vascular and avascular chorion and to verify the reliability of the sampling method used.

To this aim we adopted in our experiment a simple and rapid method of

Table 1.

Week of pregnancy	No. of samples	Endoscopy (good)	Stereo-microscopy (good)	Inversion micr. (good)
8	8	8	8	8
9	8	8	8	8
10	7	7	7	7
11	1	1	1	1
12	6	6	6	6
Total	30	30	30	30

sample control, we performed in the operating room immediately after chorionic biopsy, in women undergoing voluntary abortion. This method allowed us also to verify the reliability of the villi endoscopic appearance (quantity and quality of villi).

Chorion biopsies were obtained by direct vision technique (fig. 1) by mean of a new endoscopic device (Wolf, 7134 Knittlingen, West Germany). Sampled villi were observed, showed in Hanks saline or physiological solution, in a Petri dish or in a test tube using a stereomicroscope (Zeiss, 7082 Oberkochen, West Germany) at 8 or 12 magnifications. The qualitative and quantitative goodness of the sample was showed. The sample was then invoiced to the cytogenetics laboratory, where another control was made by inversion microscopy. In the first 30 consecutive successful samples, collected in different weeks of pregnancy, no false



Fig. 1. — Endoscopic picture.

negative nor false positive cases were observed (table 1). The mean weight of each sample was of about 30 mg, in case was a second biopsy necessary.

Our preliminary experience stresses that stereomicroscopy is a useful and practical method of villi sample control in first trimester antenatal diagnosis.

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