

Intrapartum fetal heart rate monitoring. VIII. Atypical variable decelerations.

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A total of 1,996 fetal heart rate (FHR) tracings were analyzed to assess the prognostic significance of variable decelerations. Nineteen percent (186 cases) of 988 tracings with variable decelerations in the last 30 minutes of monitored labor exhibited signs of atypia listed in order of frequency: (1) loss of initial acceleration, (2) slow return to the baseline FHR, (3) loss of secondary acceleration, (4) prolonged secondary acceleration, (5) biphasic deceleration, (6) loss of variability during deceleration, and (7) continuation of the baseline at a lower level. Variable decelerations with one or more of these features were called atypical variable decelerations and predicted a high incidence of fetal acidosis and low Apgar scores.

By contrast, adverse fetal outcome was uncommon with pure variable decelerations (p much less than 0.001) irrespective of the duration and amplitude of the deceleration. Both pure and atypical variable decelerations were associated with other FHR abnormalities in over 60% of the cases. However, the particularly unfavorable combination with decreased FHR variability and tachycardia or bradycardia was seen more frequently with atypical than with pure variable decelerations (p much less than 0.001) and predicted the highest incidence of low Apgar scores. It is concluded that atypical features aid greatly in the identification of distress in fetuses with variable decelerations.