ICP monitoring

ICP waveform abnormalities

Normal ICP pressure waveform

Waveform characteristic | Significance
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‘A’ waves or plateau waves—high amplitude waves of 50–100 mmHg sustained for up to 15 minutes | Raised ICP with compromised cerebral blood flow
‘B’ waves—“saw-tooth” appearance with small changes in pressure every 0.5–2 minutes | Poor intracranial compliance
‘C’ waves—low amplitude oscillations up to 20 mmHg for approximately 1 minute with a frequency of approximately 5 per minute | May be normal; associated with variations in vasoconstrictor tone
Flat ICP trace | Damped trace from blockage of an intraventricular catheter or compression or kinking of the transducer
Elevated P2 with a rounded appearance of the waveform. The three distinct parts of each waveform are lost | Raised ICP

P1 = Choroid plexus pulsations
P2 = Tidal wave
P3 = Dicrotic wave