Problem: The HR reading is twice the animals actual HR.

This is generally seen in very athletic animals or large animals with strong hearts.
This can confuse an SpO2 sensor into reading a double heartbeat.

The Dicrotic Notch is a transient increase in arterial pressure that corresponds to the closing of the aortic (semilunar) valve. When the valve closes, vibrations are created, causing a small "bump" on the arterial pressure tracing, where it would normally be decreasing (because the valve is now shut and no blood is coming into the aorta from the heart. Look at the arterial (aortic) pressure line - you will see an increase in pressure during ventricular systole, but at the beginning of diastole, where pressure should be falling, there is a small bump in the line - the Dicrotic Notch.
