Atrioventricular junctional tachycardia with rate (acceleration)-dependent aberrancy

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A 71-year-old man admitted for cancer-related hemoptysis was evaluated. The right bundle branch block with right axis deviation QRS complexes are followed by a small P wave (P⁻), which was not easily detected but retrograde in lead II and aVF and also visible in V₁. That the prolonged intraventricular conduction is due to the rapid rate is demonstrated at the end of the tracing. Up to the fourth beat from the end, the R-R is 460 milliseconds; this prolongs to 490 milliseconds between the fourth and third beats from the end (respective equivalent heart rates of 130 and 122 bpm). There ensues a 1.3-second pause followed by a small P wave of indeterminate origin and a normally narrow QRS. The tachycardia resumes after 400 milliseconds. (The narrow QRS matched the patient's normal tracings.) The pause ended the QRS aberrancy, indicating that the right bundle branch block pattern was rate (acceleration) dependent. The mechanism of the slight slowing of the last tachycardia beat is undetermined, although it must be considered to be related to the 1.3-second (1300 millisecond) pause that permitted QRS normalization.