



A service of the National Library of Medicine and the National Institutes of Health

My NCBI [Sign In] [Reg]

All Databases PubMed Nucleotide Protein Genome Structure OMIM PMC Journals Bo

Search PubMed for [ ] Go Clear

Limits Preview/Index History Clipboard Details

Display AbstractPlus Show 20 Sort by Send to

All: 1 Review: 0

Links

1: Cardiologia. 1989 Apr;34(4):365-74.

[An electrophysiologic and electropharmacological study of functional properties of the bundle of Kent in Wolff-Parkinson-White syndrome]

[Article in Italian]

Costantini M, Chimienti M, Zardini M, Klersy C, Guasti L, Salerno JA.

The aim of this report is to attempt a definition of functional properties of Kent bundle on the basis of electrophysiologic and electropharmacologic data obtained from 89 cases of Wolff-Parkinson-White syndrome selected among a total number of 114 consecutive cases of WPW syndrome that underwent electrophysiologic intracavitary study. In 36 cases anterograde (ant) and retrograde (retr) effective refractory period (ERP) of accessory pathway were evaluated with premature (atrial and ventricular) stimulation at the same driven cycle length. The ant-ERP was longer than retr-ERP in 28/36 patients, shorter in 5 and equal in 2. This strong discrepancy between ant- and retr- ERP suggests an important role of "impedance mismatch" in the activation of ventricular (or atrial) muscle through an anomalous muscular bundle. In 11 cases an intermittent pattern of ventricular preexcitation was observed; in all these patients an anterograde supernormal conduction through the accessory pathway was observed. This aspect could be related to the activation of ventricular muscle, beyond Kent bundle, in its supernormal phase of excitability, suggesting the critical role played by ventricular activation for the appearance of preexcitation. Isoproterenol, injected in 11 cases (1 among them with intermittent ventricular preexcitation in basal conditions), produced a reduction of ant-ERP in all these cases, in spite of its well known poor effect on refractoriness of myocardial fibers. Ajmaline, injected in 32 patients, was able to block ventricular preexcitation in 81% of the cases, in spite of its poor effect on refractoriness of normal tissues. It is very likely that the disappearance of ventricular preexcitation is in this instance expression of lack of ventricular excitation (distal to Kent bundle) consequent to a drug-induced reduction of membrane responsiveness of ventricular cells. In conclusion, all these aspects strongly suggest that the appearance of ventricular (or atrial) preexcitation could be related to the activation of ventricular (or atrial) muscle distal to Kent bundle, rather than to conduction through the Kent bundle itself.

PMID: 2758442 [PubMed - indexed for MEDLINE]

Display AbstractPlus Show 20 Sort by Send to

Write to the Help Desk NCBI | NLM | NIH Department of Health & Human Services Privacy Statement | Freedom of Information Act | Disclaimer

Related Links

Effect of adenosine triphosphate on the accessory pathways. [Eur Heart J. 1984]

Effects of isoproterenol on accessory pathway conduction in intermittent or concealed Wolff-Parkinson-White syndrome. [Am J Cardiol. 1990]

[Ventricular pre-excitation: electrophysiopathology, criteria for interpretation and clinical diagnosis. References for geriatrics] [Am J Cardioangiol. 2001]

[Effect of stimulation of adrenergic beta receptors on electrophysiologic properties of the bundle of Kent in patients with intermittent Wolff-Parkinson-White syndrome] [Kardiol Pol. 1989]

Propofol has no direct effect on sinoatrial node function or on normal atrioventricular and accessory pathway conduction in Wolff-Parkinson-White syndrome during alfentanil/midazolam anesthesia. [Anesthesiology. 1995]

See all Related Articles...

Aug 14 2006 08:07:58