

## EDITORIAL

# „What's in a name?"

## A look at the nomenclature of A-V conduction

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Correct interpretation of electrocardiographic phenomena should be based upon knowledge of the underlying mechanisms. This requires insight into both the morphological and electrophysiological basis for impulse formation and conduction. But even with the help of such new techniques as microelectrode recordings, His bundle electrography and the intelligent use of electrical stimulation of the heart, we are only scratching the surface of this problem.

In the beginning of 1973 a group of distinguished American colleagues published their nomenclature and concepts on atrioventricular and interventricular conduction [1]; to quote from that article: "as a sort of housekeeping service of an important new area to facilitate future clinical and investigative pursuits and communications".

In this issue of the *European Journal of Cardiology* some prominent European cardiac anatomists and pathologists reach a communis opinio on structure and nomenclature of the 'normal' atrioventricular junctional area [2] and extra connections leading to premature excitation of certain parts of the heart [3]. The names given are based on anatomical findings with an occasional bow to electrophysiological postulates.

The inevitable question arises: "What is the functional meaning of this nomenclature of the A-V junction?" First of all it remains to be proven that normal and abnormal functional behavior is always based on recognizable anatomical substrates. The problem becomes even more compli-

cated if one tries to devise a nomenclature for accessory atrioventricular connections. In principal it is impossible to decide on the basis of the anatomical findings whether or not an accessory bundle has, indeed, been an accessory pathway. It is well known that accessory bundles have been demonstrated in patients who never had any sign or form of pre-excitation, while on the other hand preexcitation may occur and has occurred in patients in whose hearts an accessory pathway could never be demonstrated.

Recent developments, however, open the possibility to test the functional significance of parts of the proposed anatomic classification by:

1. The introduction of recordings from the specialized conduction system in the intact and exposed heart.
2. By mapping epicardial, intramural and intracavitary excitation, and its validation by surgical interventions.
3. Postmortem examination of hearts previously studied by intracardiac electrocardiography, electrical stimulation, and mapping.

Under experimental conditions the most promising approach seems to be the correlation between electrophysiological observations and morphological reconstruction of the region by marking techniques [4].

Although the problem seems far from solved, it is obvious that a nomenclature for A-V conduction should be devised which is universally acceptable.

At present, the differences between the propositions of the cited American group [1] and that of the European anatomists [2, 3] do not seem to be of such magnitude that agreement cannot be reached. Hopefully, communication between the two groups will be stimulated by this issue of the European *Journal of Cardiology*.

## References

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