VII. General Discussion and Conclusion

Luigi Pellettieri

A treatment programme is the result of deliberation in which the therapist weighs a number of different factors against one another. In his efforts to exert maximum control over the course of the disease, he assesses not only the relevant facts as they present themselves at that moment but also the likely future course. Each symptom or item of information is thus assigned both spatial and temporal dimensions. Different factors (symptoms or data) are assigned differing importance, depending on their relative magnitude and rate of change with time. Certain factors are directly related to the disease itself, while others are related to the patient who has the disease. There are also other factors which are not directly related to the patient or to the disease. All these factors may influence the decision-maker, including the latter factors, which may be termed “external circumstances” and include such factors as the patient’s attitude to his disease and to different types of treatment. A patient with AVM may be unable to face the thought of living with this threat and may insist on having an operation even if the surgeon is doubtful, while another patient may refuse surgery and nullify the surgeon’s decision to operate. The surgeon himself is, of course, another variable and fluctuations of mood may influence his decision.

In theory, an adequate decision should be based on all the factors involved in the process one wishes to influence. This, in turn, presupposes that one knows how much importance to attach to different factors when reaching a decision. Both these conditions are in practice very difficult to fulfil. Each clinician develops his own method of evaluating which factors are of importance, based on personal experience. He will also attribute different importance to different factors. This assignment of higher priority to certain factors means that factors considered to have little or no importance will gradually be excluded from the assessment.

As AVM is a relatively uncommon disease, the individual surgeon’s experience will be limited and his ranking of different factors in order of importance may be erroneous. He may overrate...
the importance of factors which support his own views on how to treat the disease and neglect factors which do not. The clinician may also draw the wrong parallels. For example, he may unconsciously tend to compare AVM with arterial aneurysms and favour surgery because he overrates the risk of haemorrhage. On the other hand, the clinician may have developed a conservative attitude towards the disease in general, particularly when surgical treatment does not give unequivocally better results.

In this study, which is a statistical analysis of the results of surgery and conservative treatment in AVM-patients, the different factors used in the decision process have been called "variables". Together, these variables make up the "risk profile". The risk profile thus describes relevant characteristics of the patient and his malformation. The synonymous designation "patient-VM constellations" has therefore also been used at times.

Both the number of variables and their identification was based on information given by the clinician in the case records. In this context it is obviously an advantage that all the patients were treated at the same clinic, so that the selection criteria for surgery or conservative treatment were fairly uniform.

The number of variables making up the risk profiles have been carefully considered. We were forced to strike a balance between the wish to include as many variables as possible, in order to make the study complete, and the need to limit their number, owing to the relatively small number of patients. These methodological problems should be seen as an indication that the prognostic implications and treatment policy proposed should be applied with certain reservations.

The main purpose of this study was to draw up guidelines for treatment of patients with AVM, i.e., for the decision between surgery and conservative treatment. It is quite clear that this problem cannot be resolved by comparing the overall results in different groups of operated and nonoperated patients. The original selection means that the groups are not directly comparable. In this study patients with equivalent risk profiles in each group were therefore compared. The study comprises a consecutive series of 166 patients treated at the Department of Neurosurgery at Sahlgren Hospital, Gothenburg, between 1953 and 1971. 119 were subjected to surgery and 47 were given conservative treatment. A detailed description of the patients is given in Chapter II. The vascularization, location, and size of the malformations are presented in relation to the patient’s age and sex. The variables that formed the basis of the decision whether or not to operate have been identified (Chapter III). Seven variables were