

Teaching an educational program of medical angiology/vascular medicine in Europe

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One of the most critical problems of modern medicine is the segmentation of knowledge coupled with therapeutic interventions that are increasingly specialised and “organ-minded”, to the detriment of a unitary vision of the patient.

The risk of promoting medical practice aimed at intervention rather than at caring for the individual is real. This is not only due to the common tendency of proceeding in parallel, but also to the use of often unfinalized or unguided instrumental investigation.

On the other hand, if the enormous development of scientific knowledge is based on, and forcibly leads to specialization of such knowledge, specialization per se does not contradict a unitary vision of medicine. Indeed it is possible to correctly organize the various specialties on the basis of widespread co-operation among specialists in different areas and especially through the development of cognitive, and eventually institutional tools of synthesis [3].

In proposing world-wide recognition of a new specialty, the initial steps should, therefore, be to verify the actual need thereof and to establish straightforward orientative criteria, in order to assist in its practical implementation.

This is precisely the goal that the European Working Group on Medical Angiology had in mind when it drafted its first document on the rationale behind this proposal [1,2,6].

Medical angiology/vascular medicine

Four presumptions justify recognition of medical angiology/vascular medicine as a specialty, with the same dignity as the others that were established in the past: a) the epidemiologic data on the prevalence, incidence and natural history of vascular diseases; b) the progressive and continuing foundation of medical angiology/vascular medicine centers based on actual clinical need and an increasing request for specialized diagnostic and therapeutic performance, besides prevention and rehabilitation; c) the existence of clinical research centers that have favored the development of scientific knowledge and its correct application; and d) the need of qualified pre- and postgraduate educational programs in vascular disease.

Epidemiology of vascular disease

Despite the cognitive stimulus seen over the past few years even today we have insufficient data on vascular diseases. It is well established that the development and the institution of a specialty leads to an increase in the availability of epidemiological data and the increased accuracy thereof. This is due to the fact that the proficiency and precision of the screening methods has a considerable bearing on results, thus allowing for the adequate classification of asymptomatic cases (one example is peripheral vascular disease where asymptomatic cases prevail over symptomatic ones by a factor ranging from 2 to 5) [5,8]. However, the importance of vascular diseases should not be viewed only in terms of prevalence and incidence. The significance of the outcome of these patients for acute cardiovascular events and how these heavily condition the quality of life in survivors is well known. This is due both to the frequency of relapses (with strokes, for example, the cumulative risk of relapsing within 5 years involves from one-third to half of all patients), and to the ensuing severe limitations to social life and often to self-sufficiency [8].

Moreover, the general data available today should be verified and integrated by the different national findings. Furthermore, such information could constitute an extremely important foundation also for adequate health planning that should consider the diffusion and the social cost of these diseases and the possibility of achieving an effective prevention of acute events, a follow-up through targeted tests, and a rehabilitation program aimed at limiting the loss of independence or ability to work that regrettably typifies a high percentage of these patients.

Medical angiology/vascular medicine centers

An increasing number of medical angiology/vascular medicine centers have opened recently. These centers are present throughout Europe and were based on clinical foundations in reply to popular needs. In many cases their creation was dictated by substantial needs, rather than planning, and in a number of instances these centers exist under various "institutional headings" and have not yet been recognized for the specialty on which they actually concentrate. In any case, there is still a considerable discrepancy between the request for assistance, i.e., vascular patients, and the structures and services available within and, in even greater proportion, without Europe.

Research centers

All European research centers in medical angiology/vascular medicine also double as clinical facilities. They have been responsible for an extraordinary cognitive impulse and have made it possible to combine methodological strictness in vascular research with its clinical application. To exemplify the enormous growth in knowledge and the need of a relevant specialty in the vascular field, one can cite the new breakthroughs

in physiopathology, in increasingly targeted diagnostic procedures that integrate well with macro- and microcirculation studies, in interventive and pharmaceutical therapy.

*Pregraduate education in **medical and fOlogy/vascular medicine***

The limits inherent in the pregraduate training of a vast and evolving discipline are self-evident, without mentioning the need of an ability to teach the educators themselves through postgraduate specialization.

However, even though medical angiology/vascular medicine is currently not contemplated throughout Europe as a pregraduate course, it is still a part of internal medicine. Courses, programs and objectives often differ even within single countries, given the uneven distribution of centers and professors involved in medical angiology/vascular medicine.

The above should be food for thought in light of the incidence of these diseases throughout all Europe. the importance of early diagnosis, the prevention of the most serious complications, and the correct management of vascular patients.

The specialty of medical angiology/vascular medicine

Contente

The clinical specialty of medical angiology will encompass all diseases of the vascular system (arterial, venous, lymphatic, mierocirculation) irrespective of the organ involved. This specialty must provide training in the following areas: a) clinical management of vascular diseases in terms of prevention, diagnosis and treatment; b) research in the vascular field on all aspects of these diseases; and c) identification of methods that could make it possible to observe and to centralize data on the epidemiology and natural history of vascular diseases, and, therefore. assist in planning interventions more correctly.

In the European document, and in the proposals set forth by the European Working Group, medical angiology and vascular medicine are used as synonyms even though these definitions have different backgrounds.

*General **qualifying** criteria*

Three aspects are considered basic to the proposed specialty of medical angiology/-vascular medicine: a) the specialty of medical angiology/vascular medicine should be preceded by a period of training in internal medicine. This indication should be applied to all medical specialties to ensure an adequate clinical and therapeutic assessment of the patient. The notion that medical angiology/vascular medicine as a subspecialty of internal medicine, upheld by the European Working Group, should be viewed in this perspective. Whereas this line should be pursued until implementation throughout Europe, medical angiology/vascular medicine should be granted the same

status as the other medical specialties (gastrology, cardiology, etc.); b) efforts must be made to ensure homogeneous and co-ordinated programs among medical angiology/vascular medicine specialties Europe-wide, with ample opportunity for co-operation on the basis of high scientific standards; and c) debate and co-operation with specialista in other disciplines should be mandated starting at the specialist training level.

The current situation in Europe and elsewhere

The roots of medical angiology are in Europe. Despite this fact, today only Italy, Switzerland, and quite recently Germany, have officially recognized specialties although in different settings due to local regulations. The recognition of the specialty in France seems just around the corner.

In Italy there are now two schools that teach angiology as a specialty. Government bodies in charge of this area have so far denied requests to open other schools on the basis that the specialty did not exist in any other EC country. The opening of schools in Germany, along with hopes of Switzerland's future entry into the European Community, should also help to overcome these obstacles. Furthermore, admission to a specialty in Italy occurs immediately after graduation in medicine and surgery. Currently the specialty of angiology enjoys an independent status and courses last 4 years.

In Switzerland, all specialties such as angiology, cardiology, and gastroenterology, for example, are not independent but a subtitle of general internal medicine. The required curriculum is full training in internal medicine or dermatology for 5 years. After this period devoted to a broader education, one can enroll in an angiology course for a minimum of 2 years to be spent entirely within one of the four divisions of angiology at the Swiss University or split between one of these divisions and one of the angiology units in some district hospitals.

Institution of the speciality of angiology was recently approved in Germany as a subspecialty of internal medicine along the lines of other disciplines (such as gastroenterology, cardiology, nephrology, etc.).

As of today there is a lack of co-ordination among the specialties in the various countries, however, our work within the European Working Group on Medical Angiology, especially the general criteria behind the petition to extend the specialty to all of Europe, as well as definition of the program for a European Fellowship in Medical Angiology, can provide a basis for debate and common work. Without doubt, this occasion would constitute a rare event in the history of the institution of medical specialties, with the real possibility that the new specialties may be initiated and the existing ones upgraded with common programs and objectives. In the coming year the European Working Group on Medical Angiology has planned meetings with the EEC Commission in charge of developing and legitimizing medical specialties.

The process which led to vascular medicine becoming an independent clinical specialty in Australia, as well as the resulting impulse given to the creation of clinical and research centers, supports our efforts here in Europe.

Even in the US, the National Institute of Health has undertaken to support a number of vascular centers and interest in this subject is well demonstrated by the document published by the US Group [4].

When planning and investigating the horizons of teaching and educational programs of medical angiology/vascular medicine within the European Working Group on Medical Angiology, both the US and Australian situations are now represented, beyond a common European organization, in order to provide for a closer co-ordination of programs and truly International work.

European Fellowship on Medical Angiology

This proposal has been discussed at length in the European Working Group on Medical Angiology and today has materialized as a final and detailed training program headed for an implementation phase that will, however, require an adequate amount of time.

The objective is to create an instrument capable of preparing European Medical Angiology Fellows, trained according to a common program in selected centers to be chosen according to strict criteria, and capable of truly contributing to medical assistance and research in the vascular field. The European Fellowship on Medical Angiology calls for at least 2 years of training in a specialized unit of angiology for physicians with an adequate background in internal medicine.

During this period the attending physician will receive information and partake in active vascular disease management involving prophylaxis, etiology, epidemiology, pathophysiology, symptomatology, diagnosis, differential diagnosis and therapy including intensive care and rehabilitation.

The European Fellowship program details the specific expertise and indicates the criteria for implementation.

The aspects that are summarized hereafter have been analyzed in detail: a) primary and secondary prevention; b) diagnosis with both instrumental and macro/micro-circulatory techniques, whether or not invasive, as well as through biological testing; c) dietary, physical, rehabilitative and pharmacological therapy, systemic and local thrombolysis, possibly associated with other techniques besides specific bandaging techniques and local therapy for lymphatic and venous disease; d) the planning of debate sessions and continuing co-operation with other specialists; and e) research methods and initiation of a teaching program.

The document on the Fellowship in angiology also defines the qualification criteria for training centers in medical angiology as well as those for quality assurance.

European Working Group on Medical Angiology and IUA International Committee on Medical Angiology

The activities of the European Working Group have been recognized by the

International Union of Angiology that has also established an International Committee on Medical Angiology. This committee will consist of members of the group who will vouch for the promotion of continuity and quality during the phase of project implementation and will also assume responsibility, before the IUA, concerning the European Working Group Projects, for the international development and recognition of medical angiology. Consistency of objectives, an extraordinary ambition to cooperate, not to mention the scientific and social relevance of their fulfillment, offer a solid endorsement for the future.

European Working Group on Medical Angiology

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