JOURNAL DE

L'ASSOCIATION MÉDICALE CANADIENNE

published twice a month by

THE CANADIAN MEDICAL ASSOCIATION
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MEDICAL EDUCATION - A COMPROMISE

One of the interesting things about human life is the frequency with which it is impossible to predict correctly the outcome of our actions. This, of course, is a reflection of the multiplicity of factors which influence even comparatively simple human activities.

An interesting example of the futility of making simple a priori assumptions has recently been reported in an analysis of the effects of imposing a charge on prescriptions in the British National Health Service. With the idea of curbing prescribing and cutting down costs, the U.K. Ministry of Health introduced a small charge for prescriptions -first on the basis of each prescription form filled in, and later on the basis of each individual item prescribed. Analysis of the effects of these measures by Martin and Williams (Lancet, 1: 36, 1959) shows that the first measure was counteracted by doctors writing more prescriptions per form, and the second by doctors prescribing larger quantities of drugs and more expensive drugs. In fact, the calculations of the experts in the Ministry of Health for introducing these charges had been absolutely correct but for one thing-they had completely miscalculated the reaction of the doctor.

In the first article in this issue of the Journal, Dr. Thompson gives us a glimpse of the many factors which shape the policies of faculties of medicine and therefore affect the education of medical students. When one reflects on the problems created by this interplay of many diverse pressures, one wonders how the faculties of medicine succeed in turning out anything like an approximation to a satisfactory doctor, and how the effects of experiments in the curriculum can be even approximately predicted.

During the last week of August, medical educators of the world will be meeting in Chicago under the auspices of The World Medical Association to discuss education of the doctor after graduation. Six years ago they met in London to discuss his formation in the university, and one might well ask whether, in view of the complexities of the problems involved, they should not be devoting some time in Chicago to considering what effect the 1953 meeting has had on undergraduate education.

In his Matheson Shaw lecture in Edinburgh last November, Professor Arnott of Birmingham described the main attributes which a university sets up to foster as "love of learning and discovery." intellectual humility, and a moral outlook which places high standards of work and intellectual honesty far above material profits". He then divided the factors bearing on these aims into three broad groups: (1) the organization and physical features of the university; (2) the quality and outlook of the teachers in the university; (3) the type and quality of the students. Each of these main groups contains a large number of sub-groups. Thus, for example, the first group is closely related to economics; the nature of the student life is closely related to money. For instance, Arnott makes out a good case for the residential university in which all students live together. He cites the case of the University of Aarhus in Denmark, where the farsighted Danes have provided extensive halls of residence including double quarters for married students and a crèche where their progeny may be looked after while the parents are at classes. But all this costs a great amount of money, and indeed it would cost over \$250,000,000 to make the universities in the U.K. completely residential.

Economics must also enter into the second group of factors. A recent editorial in *Nature* points out that when the universities are recognized as effectively fulfilling their function of supplying the large numbers of well-educated men and women needed by the community, public esteem will put them in a position in which they are able to attract the ablest young people to their faculties. Public esteem, and only public esteem, can give the solid financial backing necessary. The editorial writer suggests that university teachers themselves can do something to encourage public understanding of their role.

When we come to the third group—the type and quality of students—opinions differ. Arnott himself gives it as his impression that the general standard of intellect and industry in the medical student of today in Britain is at least as high as when he was young, and perhaps higher. Others shake their heads over both quantity and quality of students, while the optimists wait for that "bulge" in the population both in North America and in Europe which will produce a larger population of young people on which to draw—a tidal bore, as Arnott terms it, bearing down upon the universities in the near future.

Dr. Thompson and several other contributors to this issue point out shortcomings of the medical curriculum. It is well that these shortcomings should be pointed out, but it is well that we should also understand that there is no ideal curriculum, that if there were we probably could not carry it out, and that medical education, because it is subjected to so many complex factors, must remain a compromise, though of course the best compromise we can make. And inevitably the compromise will be different in different places and at different times.

Editorial Comments

OUR RESPONSIBILITY TO MEDICINE

Last fall, Dr. Elmer R. Stewardson,* the President of the College of Physicians and Surgeons of Saskatchewan, gave an address to the Swift Current and District Medical Society in which he made some pertinent remarks on recruitment for the medical profession. Over the period of a year he had noted repeated reference to the lack of applicants for the medical colleges of Canada, and in November 1958 had read the press report of the Dean of Medicine to the Senate of the University of Saskatchewan, in which reference was made to a lack of medical bursaries and scholarships and the possible inadequacy of loan funds for worthy students. Conceding the importance of these, he went on to say:

"After the war, a large ex-service population applied for admission to university courses, and the medical colleges especially felt the impact. These applicants were older people. They knew what they wanted-the government made it financially possible in a limited way—and they bent their backs to the course. Accordingly their marks were good and for a youngster to compete with them he had to be a bright and dedicated student.

"So the impression developed rapidly that to be accepted into medicine a boy had to be just one step short of a genius, and our teachers in collegiates could do nothing but discourage the normal, average, good type of lad from medicine; at the same time, other vocations and professions openly courted the students by offering help and advice and personal interest.

"And all the while we doctors failed in our duty —often, in conversation, have not you and I said:

- 1. Anyone who enters medicine is most foolish. 2. Twelve years is too long [note the error in
- time].
- 3. Fifteen thousand dollars is the cost [note the error in amount].
- 4. I wouldn't want my son to go through what I have gone through.
- 5. Life is too short-there are too many other opportunities.

And many other reasons.

"There is no need for me to dilate on any single one of these reasons—they are all groundless.

"I have great pride in my profession of medicine, in my ability to help relieve the suffering of some, and to be kind and reassuring to those whom I cannot help. I shall still be proud and happy to do this no matter under what conditions of practice. It is my privilege and yours—we are the most educated of the professions-let us also be the most intelligent; let us entice the right type of boy or man into our profession; let us go away out on a limb and help him financially, if necessary. Let us support our medical college and let us fulfil our oath to medicine, to teach our art and our science to others.

'Gentlemen, let us never do a mean or shoddy thing—let us practise wisdom and understanding so that we may give sound advice and wise counsel to those who seek it. Let us be proud of our pro-

fession always.

"This is what I wanted to bring to you today. I hope by next year that this society or individual doctors here will be responsible in part at least for directing and maybe helping some worth-while lad into medicine; if so, I shall have accomplished something very worth while by my talk today."

KERATOACANTHOMA

During the past decade dermatologists and pathologists have become aware of the importance of keratoacanthoma. Histologically, this tumour closely resembles a well-differentiated squamous cell carcinoma. The basic difference is that a keratoacanthoma will disappear spontaneously, while a squamous cell carcinoma will not. Clinically, keratoacanthoma is not an uncommon tumour, usually occurring on the face. It has a large central keratin or horny plug surrounded by smooth convex sides. A few telangiectatic vessels may be seen on the surface. There is no infiltration at the base. Usually the diameter is from 1 to 2 cm. The lesion develops its maximum size in 4 to 12 weeks and then slowly regresses in 8 to 16 weeks, leaving a smooth atrophic scar. Veidenheimer and Fidler estimate that keratoacanthomas are one-third as common as squamous cell carcinomas; Linell and Mansson⁶ claim that about 20% of tumours formerly diagnosed as squamous cell carcinoma turned out to be keratoacanthomas.

Histologically, a well-developed lesion shows a large central volcano-like crater filled with keratin. The walls of the crater are formed of hypertrophied and downgrowing non-malignant epidermis. The basal layer is intact, and there is no dropping off of squamous cells into the corium. The proliferating epidermis closely resembles that seen in pseudoepitheliomatous hyperplasia (as seen in bromoderma, the edges of chronic ulcers, radiodermatitis, etc.).

There are at least three types of keratoacanthomas. (1) The most common is the solitary type, usually occurring on the face and closely related to the normal ageing of the skin, due principally to sunlight. This occurs in patients over 45. (2) The multiple type, occurring on hands, forearms and face, may be seen in patients who are much younger. In some cases there is a history of exposure to tar and tar products. Ageing of the

^{*}Dr. Stewardson has given permission for this material to be used appropriately in the recruiting of medical students— J. W. Macleod. M.D., Dean of Medicine, University of Saskatchewan, February 12, 1959.