HISTORY OF MEDICINE

Leg ulcers in the eighteenth and early nineteenth centuries

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SUMMARY. Compared to today, ulceration of the legs was much more common in the eighteenth and early nineteenth centuries and occurred in much younger people. The evidence for this, based mainly on the records of the hospitals, the dispensaries and medical records of the navy and army, is discussed. It is likely that the underlying pathology was much more varied in the past, with the possibility that ascorbic acid deficiency played a significant part in the high frequency of leg ulcers.

IN November 1799 a surgeon from London called Charles Brown, otherwise unknown to history, wrote a letter that was published in the *Medical and Physical Journal.*¹ It was about leg ulcers. He drew attention to the problem caused by the vast number of such patients, stating that:

"... it is a very melancholy fact that among the lower classes of the community, nearly in the proportion of one out of five, labour, and have many years, under this severe affliction."

Pointing out that cases were so numerous that many were turned away from the general hospitals, he appealed to others to join him in founding a special hospital or dispensary devoted solely to the treatment of leg ulcers. For a comparatively small sum he estimated that 10,000 cases could be treated each year. There appears to have been no response to his appeal, which is not surprising. Medical philanthropy was at the height of its activity by the end of the eighteenth century, and competition for subscribers was fierce. The first voluntary hospital (the Westminster) was founded in 1720 and the first general dispensary (apart from the shortlived Royal College of Physicians' Dispensary from 1696 to 1725) was founded in Aldersgate Street in 1770; by 1800 there were five voluntary hospitals and 16 dispensaries in London and another 32 hospitals and 22 dispensaries in the provinces.² The rate at which these medical institutions were established was remarkable.

At this time, of course, there were no general practitioners (at least not in name) and there was no principle of referral to hospital or system of secondary care. The hospitals and dispensaries were, by the beginning of the nineteenth century, the main sources of orthodox primary medical care for the labouring poor. Patients had direct access to their services, and needed only a letter of recommendation from a subscriber (waived for emergencies) to certify that the patient was a 'proper object of charity', that is, someone too poor to pay for medical care.

The evidence from hospitals and dispensaries

It is in the records of the hospitals and dispensaries that we can look for evidence to see if leg ulcers were really as common as Charles Brown implied they were in his letter of appeal. Indeed, it seems that they were extraordinarily common in the eighteenth and early nineteenth centuries,³ certainly much more common than they are today. The evidence of this is summarized in Table 1.

At Bristol Infirmary³² in 1800, for instance, 19 per cent of surgical inpatient admissions and 42 per cent of outpatients were cases of leg ulcers. (Throughout this paper, the word 'admissions' is used in its original sense of meaning 'admission to a charity' and applied both to outpatients (as at the dispensaries where there were no inpatient facilities) and to inpatients.) At the Devon and Exeter Hospital,³¹ only about three per cent were treated as outpatients; nearly all were admitted to the wards. Between 1760 and 1800, leg ulcer cases at Exeter accounted for 16 to 23 per cent of all inpatient admissions-medical as well as surgical. Nearly all were chronic ulcers. On average, the history before admission was three to six months, but 30 per cent had been present for one to 10 years. The mean length of stay in hospital for leg ulcers in 1816 was 14.8 weeks, the

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| | Year | Admissions | | | Leg ulcers as percentage of admissions | |
|--|------------|---------------|-------------------|----------------------------|--|-------------------------|
| Institution | | Leg ulcers | Total surgical | Total medical and surgical | Surgical | Medical and surgical |
| The Devon and Exeter Hospital: inpatients | 1760 | 125 | | 767 | | 16 |
| | 1770 | 159 | | 723 | | 22 |
| | 1780 | 171 | | 856 | | 20 |
| | 1790 | 236 | | 1,011 | | 23 |
| | 1800 | 143 | | 834 | | 17 |
| The Middlesex Hospital, London: inpatients | 1751-55 | 31 | | 589 | | 5 |
| | 1775 | 73 | | 824 | | 9 |
| | 1795 | 70 | | 656 | | 11 • |
| | 1815 | 54 | | 1,102 | | 5 |
| Bristol Infirmary: | | | | | | |
| inpatients | 1785 | 141 | | 1,145 | | 12 |
| outpatients | 1785 | 241 | | 2,540 | | 9 |
| inpatients | 1800 (May- | 47 | 242 | 523 | 19 | 9 |
| outpatients | August) | 87 | 205 | 988 | 42 | 9 |
| inpatients | 1815 | 98 | | 1,362 | | 7 |
| outpatients | 1815 | 174 | | 1,999 | | 9 |
| Liverpool Dispensary ('Abscessus & Ulcus') | 1801 | 868 | 2,153 | 15,165 | 40 | 6 |
| Bath City Dispensary | 1801-2 | 64 | 127 | 1,222 | 50 | 5 |
| Nottingham Hospital: inpatients ('ulcus') | 1807-11 | 357 | | 5,566 | c.22 | 6 |
| St George's and St James' Dispensary, London | 1822-3 | 30 | 219 | 1.094 | 14 | 3 |
| Edinburgh Surgical Hospital: | | | | , | | |
| inpatients | 1832 | 41 | 336 | | 12 | |
| outpatients | 1832 | 264 | 2,208 | | 12 | |

Table 1. Admission* rates for leg ulcers to various hospitals and dispensaries during the eighteenth and early nineteenth centuries.

*Admission is used in its original sense of 'admission to a charity' and not solely to indicate admission as an inpatient. Sources: see references 31-38.

median about 12 weeks; 92 admissions for leg ulcers accounted for nearly 10,000 bed days. The problems caused by this amount of illness can easily be imagined.

At most dispensaries many more medical than surgical cases were admitted than at the hospitals.² Cases of leg ulcers therefore formed a smaller part of the overall case load, and a dispensary surgeon, complaining of the tendency of such patients to attend for years on end, believed they might be treated "with more convenience . . . at other institutions".⁴

The age and sex of leg ulcer cases: past and present

Documentary evidence of the age and sex of patients at hospitals and dispensaries in the eighteenth and early nineteenth centuries is hard to find. However, evidence from Bristol,³² Exeter³¹ and Nottingham³³ shows that leg ulcer cases were seen rather more often in men than women at these hospitals. The most striking feature, however, was the relative youth of the patients (see figure); most cases came into the 20 to 40 age group and many were under the age of 20. For example, 43 per cent (Exeter 1790), 49 per cent (Bristol 1785) and 42 per cent (Nottingham 1807-11) were under the age of 30.

How do these results differ from cases of leg ulceration today? Unexpectedly, there are few modern statistics available. Those that exist, however, confirm the common belief that leg ulcers are more common in

women than men. Anning in 1954⁵ analysed 1,026 cases attending a dermatology clinic; the ratio of women to men was $2 \cdot 2$ to 1, and most of the cases were elderly. The second morbidity study from general practice⁶ reported the same ratio of women to men for the category "varicose veins of the lower extremity with ulcer", and showed that the largest number occurred in the age group 45-64, followed by those for 65-74 and 75+ (see figure). Preliminary results of a recent survey (which suggest, incidentally, that leg ulcers have become less common over the last 20 years) confirm an excess among women, with a majority of cases occurring over the age of 60.7 The larger proportion of middle aged and elderly in the population today accounts for only a small part of these features, which are demonstrated in the figure.

If general practice today is broadly compared to hospital and dispensary practice around 1800 (on the basis that both are or were forms of primary care), it can be estimated that the prevalence of leg ulcers among the labouring poor was between 50 and 100 times as great as it is among the general population today. There is, one should add, no evidence at all that cases of leg ulceration were specially selected by the eighteenthcentury hospitals, thus giving a false impression of their frequency; on the contrary, they were regarded as tedious and unpleasant, and described as a "loathsome disorder". Many cases were turned away and there were often hospital rules specifically forbidding readmission of cases that had relapsed. It is likely, in fact, that a very

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The age of patients with leg ulcers, past and present. Data from Exeter (1790), Bristol (1785), Nottingham (1807-11) and general practice today (1971-2).

large number of leg ulcer cases in the eighteenth century received no orthodox medical care and did not appear in hospital or dispensary statistics. The difference between the prevalence of leg ulcers in 1800 and 1980, and above all the different age and sex incidence, strongly suggests a different underlying pathology. This suggestion is supported by the descriptions of leg ulcers dating from the eighteenth and early nineteenth centuries.

The literature on leg ulcers

Surprisingly, although leg ulcers were so common and caused so much concern, they receive virtually no mention in modern publications on the history of medicine,⁸ which have concentrated mostly on dramatic and killing diseases now rare or extinct. Leg ulcers, it must be admitted, seem at first an unattractive and uninteresting subject for historical research, and perhaps this explains why. There was, however, an extensive literature on the subject in the eighteenth and early nineteenth centuries.⁹⁻¹⁷ Much of this was concerned with publishing an author's experiences with his favourite method of treatment, but all were agreed on two things:

- 1. Leg ulcers were exceedingly common.
- 2. They were extremely tedious and difficult to treat.

"Ulcers on the leg form a very extensive and important class of diseases . . . The treatment of such cases is generally looked upon as an inferior branch of practice; an unpleasant and inglorious task where much labour must be bestowed, and little honour gained."¹⁸

Until the middle of the eighteenth century, the orthodox belief was held that the indolent or inveterate ulcers for which no cause was obvious were due to acrid humors in the blood. The ulcers acted as a drain for these humors with the corollary that, if active measures were used to heal the ulcer, there was a danger that these humors, denied their exit through the ulcer, would ascend and cause "pulmonic inflammation", which might be fatal. The phrase "ulcers improper to be healed" was used, and the purpose of treatment was often to alleviate such ulcers in order to relieve pain rather than aim at a complete cure.¹⁹ Benjamin Bell in 1777 advised that the healing of an ulcer might be rendered safer by "opening an issue" in the other leg. By the end of the eighteenth century, when the humoral theory was replaced by a much broader and more modern and rational theory of pathology, all such ideas were firmly rejected by surgeons; the acrid discharge, it was stated, came from the ulcer itself and not the blood. It was now considered safe to cure ulcers instead of alleviating them, and inquiries into the cause and the treatment of ulcers received a new stimulus. Nevertheless, the old superstition concerning the danger of healing chronic ulcers persisted in lay minds. Even today, there are elderly patients who believe it is unsafe to heal an old ulcer because it serves the purpose of discharging "bad blood".²⁰ It is a remarkable instance of the persistence of a once-orthodox medical belief over a period of 200 years.

From 1750 onwards a number of classifications of leg ulcers appeared in surgical texts; a selection is shown in Tables 2 and 3. In the works that were published there

| Table 2. A classification* of ulcers (1825). | | | | |
|--|-----------------------|--|--|--|
| 1. | Simple ulcer | From a superficial wound. | | |
| 2 . | Scirrous ulcer | runs under the integuments and the orifice of which is narrow but not callous. | | |
| 3. | Fistulous ulcer | A deep ulcer with a narrow and callous orifice. | | |
| 4. | Fungous ulcer | the surface of which is covered with fungous flesh. | | |
| 5. | Gangrenous ulcer | Which is livid, foetid and gangrenous. | | |
| 6. | Scorbutic ulcer | Which depends on a scorbutic acrimony. | | |
| 7. | Venereal ulcer | Arising from a venereal disease. | | |
| 8. | Cancerous ulcer | or open cancer. | | |
| 9. | Carious ulcer | Depending upon a carious bone. | | |
| 10. | The inveterate ulcer | Which is of long continuance and resists the ordinary applications. | | |
| 11. | The scrophulous ulcer | Arising from indolent tumors and discharging a viscid glairy matter. | | |

*The category 'varicose ulcer' is noted for its absence from this classification, although the association of varicose veins with leg ulcers in some instances had been described in the eighteenth century. Source: reference 28. are many detailed descriptions of ulcers, and it seems clear from these that there were many cases of venereal ulcers, ulcers due to chronic wound infections and chronic osteomyelitis, probably tuberculous ulcers as well as leg ulcers associated with varicose veins. In addition, there were many indolent inveterate ulcers described as "scorbutic". Scorbutic was, during the eighteenth century, a term debased by misuse; nevertheless, it suggested that observers believed in a connection between scurvy and leg ulcers, and this suggested that a search in naval medical literature and records might be rewarding. It was. Leg ulcers were very common in the navy during the eighteenth and early nineteenth centuries, and, as with civilians, they appeared among young adults.

Naval evidence

Sir Gilbert Blane, physician to the fleet, stressed in 1785 the importance of "large spreading incurable ulcers . . . which sometimes end in the loss of a limb; but at any rate disables [them] from duty till a cure can be effected by the use of a fresh and vegetable diet, or a change of climate". He believed in the connection with scurvy and stated that "next to acute diseases and scurvy this [ulcers] is the most destructive complaint incident to a sea life . . .".²¹

Before Blane, James Lind, whose famous treatise (1753) is still said to be the best account of florid scurvy ever written, deals at length with leg ulcers. He wrote that they often appeared during a voyage, before clini-

| Table 3. Classifications of ulcers by various authors from 1739 to 1954. | | | | | | | |
|--|--|---------------------------|---------------------------|---|-------------------|---|-------|
| Samuel Sharp, 1739 | Benjamin Bell, 1778 | Edin: Med: Dict:, 1807 | George Critchett, 1848 | Henry Cutler, 1845 Cutler reported the | | S. T. Anning, 1954 The causes of 1,026 | |
| Callous | Those whose cause | Simple | Simple or local | | | | |
| Sinuous | is local | Sinuous | ulcers cause of 100 | | ulcers treated at | | |
| Carious | Simple purulent | Fistulous | Acute successive cases as | | ies as | Leeds were as follows: | |
| Putrid | Simple vitiated | Fungous | Subacute | follows: | | Post thrombotic | 768 |
| Corrosive | Fungous | Gangrenous | Chronic | Healing | 22 | Varicose | 110 |
| Varicous | Sinous | Scorbutic | Healthy | Weak | 10 | Venous insufficie | ency |
| etc. | Callous | Venereal | Irritable | Indolent | 20 | of doubtful origin | า 115 |
| | Carious | Cancerous | Varicose | Sloughing | 7 | Total of venous | |
| Any of the above | Cancerous | Inveterate | | Varicose | 22 | origin (97%) | 993 |
| could be associated | Cutaneous | Scrofulous | Specific or | Vicarious* | 3 | | |
| with: | | | constitutional | Specific | 10 | Arteriosclerotic | 16 |
| The pox | Those due to | | Strumous | | | Hypertensive | 9 |
| Scurvy | general disease | | Syphilitic | *Ulcers associ | ated | Ulcers associated | 1 |
| Obstruction of the | Venereal | | Phagadenic | with amenorrh | noea. | with arthritis | 8 |
| menses | Scrofulous | | Periosteal | | | Uncommon cause | es |
| Dropsies | Scorbutic | | Menstrual | | | include: | |
| and many other | | | Oedematous | | | Syphilis | |
| distempers | | | Malignant | | | Bazin's disease | |
| | | | | | | Sickle cell anaem | nia |
| | | | | | | Banti's syndrome | • |
| | | | | | | Felty's syndrome | |
| | | Source: Morris, R. & | Source: Critchett, G. | | | C | • + |
| · · · · | Source: Bell, B. | Kendrick, J. (1807). | (1848). Clinical | Source: Cutler, H. | | Source: Anning, S. I. | |
| Source: Sharp, S. | (1778). A Treatise on | The Edinburgh | lectures on | (1845). On uic | ers, | (1954). Leg Uicers | 5: |
| (1739). A Treatise on | the Theory and Medical and Management of Physical Dictionary. | | limb (append 2) | their cause and formation. Lancet, | | Their Cause and Treatment. London: | |
| the Operations of | | | 11mb. Lancet, 2, | | | | |
| Surgery London. | Orcers. Eainburgh | cainburgn. | 22/-222. | 4, 202-203 | | Churchill. | |

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cal scurvy broke out and while "the patient seems otherwise perfectly healthy". These ulcers arose from "trivial injuries or breaking down of old sores". When scurvy began to appear, the ulcers worsened and "come to shoot out a soft bloody fungus, which the sailors express by the name of *bullock's liver* . . .".²² Probably this was infected granulation tissue and haematoma and, characteristically, it smelt foul.

Some of the most important naval evidence comes from the surgeons' journals;²³ these were journals that all naval surgeons were required to keep and deposit at the end of a year with the Sick and Hurt Board. They contained clinical notes on all who were excused duties for reason of illness, and written comments on the general health of the ship and observations on treatment were added. In addition, a printed table to be filled in at the end of the journal provided a statistical summary of disease on board. The diseases that were included in the summary and the standard order in which they were printed is significant. This was:

| Continued fevers | Rheumatism |
|----------------------|-----------------------|
| Fluxes | Pulmonic inflammation |
| Scurvy | Intermittent fevers |
| Ulcers | Other conditions |
| Wounds and accidents | |

These journals are among the most valuable accounts of common illnesses and methods of treatment during the period. From these records it is quite clear that most surgeons believed there was a close link between scurvy and many of the cases of leg ulcers; moreover, this belief seems to be supported by the evidence they provided. HMS *Albion*, for instance, of 74 guns and a complement of 590 men, spent the years 1805 to 1808 in the East Indies, returning to the Downs station in May 1809. During these years there were, on average, 115 cases of scurvy a year and 60 cases of leg ulcers severe enough to be put on the sick list. An unrecorded number of milder ulcer cases continued on duty. The surgeon of the *Albion*, Andrew Elphinstone, MD, wrote a seven-page essay in his journal on leg ulcer problems²⁴.

The evidence concerning leg ulcers in the navy, both from printed and manuscript sources, supports the view that many, possibly most, were associated with scurvy. There is also a suggestion that, as scurvy became less common after 1795, so did leg ulcers,^{21,25} but interpretation is made difficult by the outbreaks in the navy at the end of the eighteenth century of the 'malignant ulcer' (the term 'malignant' meaning nasty, not neoplastic), which was clearly contagious, possibly due to a clostridial organism.²⁵

Not only were leg ulcers common in the navy, they were also common in the army and, oddly enough, so was scurvy in some of the campaigns on the continent.²⁶ In both services one feature stood out: scurvy and leg ulcers were very rare among the officers; they occurred almost exclusively among the men and the same class distinction was found among civilians.

It is much harder to try to establish whether there was an association between leg ulcers and ascorbic acid deficiency among the civilian population. In the first place, scurvy was, as mentioned, a misused term in the eighteenth century and was sometimes used to describe skin conditions.²⁷ There was also a tendency to write vaguely of a scorbutic tendency or scorbutic acrimony, or sometimes of a "scorbutic and indolent disposition" which suggests that, whatever was meant by a "scorbutic disposition", it was not complimentary. James Lind's treatise²² came as a shaft of light into a confused nosology, but it was several decades before correct use of the term scurvy was general. In the second place, scurvy was an uncommon diagnosis on land in the eighteenth century, partly because of the widespread belief that damp in general and sea air in particular was a necessary condition for its development. The term 'land scurvy' was commonly used, illustrating the belief that perhaps there were two similar but separate conditions-true scurvy seen only at sea, and the land variety. Even as late as 1825, Robert Hooper in his comprehensive medical dictionary²⁸ describes scurvy as a sea disease and lists the well-known features of florid scurvy, including, incidentally, "foul ulcers". He then adds that "scurvy as usually met with on shore . . . is unattended by any violent symptoms, as slight blotches with scaly eruptions on different parts of the body, and a sponginess of the gums, are the chief to be observed."

Scurvy on land, particularly in a mild form, was not therefore so likely to be diagnosed, and may have been much more common than contemporary sources suggest. For instance, in 1805-6 HMS Enchantress lay in Bristol Roads as a reception ship for impressed men. The ship's surgeon, familiar with scurvy, found that many of the men dragged on board from land were suffering from scurvy, and he cured them quickly with fresh vegetables and lemon juice.²⁹ The impressed men could, conceivably, be considered as a random sample of young males of the labouring classes. It is probable that the diet of the poor contained little fresh fruit or vegetables, while urban life in the industrial revolution had as two of its cardinal features a high rate of infection and hard labour-both of them features that would increase the demand on the body's ascorbic acid. Deficiency of this vitamin, if it was widespread, could have contributed to the undoubted high frequency of leg ulcers in young adults by reduced resistance to skin infections, and most of all by preventing the healing of relatively trivial injuries to the legs. This, however, is speculation and it is readily admitted that, at this stage of research, there is no clear evidence, as far as the civilian population is concerned, linking scurvy and leg ulcers.

The relevance of historical studies of morbidity

What, if any, is the importance of a historical study of leg ulcers? First, there is the intrinsic interest of a small

contribution to a part of medical history that has largely been neglected: the study of common, everyday, nonfatal diseases in the past.

Second, it can be argued that our understanding of diseases today—as much as our understanding of institutions, professions or people—is enhanced by a knowledge of their history. There is a rather sterile medical school custom of asking the student, particularly in the case of eponymous diseases, who it was who first described or gave his name to a disease—and there the history lesson ends; the much more illuminating discussion of the history of the disease itself is seldom heard.

Third, a condition such as leg ulcers, particularly if it was associated with scurvy, may be a useful index of changing social conditions. In the well-known debate on the standard of living in the industrial revolution,³⁰ one group (the 'optimists') maintains that industrialization, for all its faults, did on the whole improve the lot of the labouring poor. The opposing group (the 'pessimists') believes that, on the contrary, the supposed improvements in the standard of living were illusory and life in the industrial revolution for the labouring poor was a change for the worse. Each side marshals evidence for their argument from such features as actual and real wages, food prices, housing conditions, working conditions and so on. Studies that show a change in morbidity can provide a significant contribution to the argument. And here it should be said, though tentatively, that preliminary results suggest there was a decline in the frequency of leg ulcers from the beginning of the nineteenth century. This in itself may be an indication of a general improvement in the health of the population which, in turn, may be relevant to the fall in mortality from infectious diseases during the nineteenth century.

Whether this turns out to be true or not, it is at least an interesting proposition, suggesting that the historical study of a common condition may have wider implications than would at first be suspected. Taking morbidity 200 years ago as a whole, it is true that many other diseases were much more dangerous; through sheer weight of numbers, however, few, if any, contributed so much to prolonged suffering and disability among the young adults of the labouring classes as ulceration of the legs.

References and notes

- 1. Brown, C. (1800). On the necessity of establishing an hospital for the treatment of ulcerated legs. *Medical and Physical Journal*, 3, 135-136.
- Loudon, I. S. L. The origin and growth of the dispensary movement in England. Bulletin of the History of Medicine. In press.
- 3. This paper is concerned with the problem of leg ulcers in the period c. 1750-1830. It is probable that leg ulcers were also common before this period but there is little evidence of relative frequency until the hospitals and dispensaries were established and records of morbidity were kept.

- 4. Taunton, J. (1806-7). Reports of the surgical cases in the City and Finsbury Dispensaries. *Philosophical Magazine*, 26, 253. There is a series of reports in volumes 23-40 of the *Philosophical Magazine* concerning surgical care at these dispensaries.
- 5. Anning, S. T. (1954). Leg Ulcers: Their Causes and Treatment. London: Churchill.
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- 7. Loudon, I. S. L. This survey is based on a questionnaire sent to general practitioners in the late summer of 1980. The results are to be published.
- One of the few modern papers on leg ulcers in the eighteenth century is Van der Molden, H. R. & Schultz, J. C. (1971). L'ulcère de jambe au XVIIIeme siècle. Bulletin de la Société des Sciences Médicales du Grand-Duché de Luxembourg, 108, 283-286.
- Bell, B. (1777). A Treatise on the Theory and Management of Ulcers. Edinburgh. Probably the most influential eighteenthcentury treatise on ulcers. See also his System of Surgery (1801), 7th edition. II. Edinburgh.
- 10. Underwood, M. (1788). Surgical Tracts, including a Treatise upon Ulcers of the Legs. London. The author abandoned leg ulcers to become a child specialist on the basis of shamelessly plagiarizing the writings of George Armstrong, founder in 1769 of the Dispensary for the Infant Poor.
- 11. Rowley, W. (1774). A Treatise on the Cure of Ulcerated Legs without Rest. London. Notable for its patently dishonest claims of invariable rapid cures where others had repeatedly failed. Having no special methods of treatment, he attempted to disarm criticism by the bland statement: "How cures are thus performed I do not account for, but leave it to be explained by the visionary and speculative theorists."
- 12. Baynton, T. (1799). Descriptive Account of a New Method of Treating Old Ulcers of the Legs. 2nd edition. Bristol. His use of adhesive straps to bring the edges of ulcers towards each other was well known and popular.
- 13. Bell, J. (1801). *The Principles of Surgery*. I, 97ff. An account of leg ulcers in a large surgical text notable for clear descriptions and healthy scepticism about claims of cures.
- 14. Home, E. (1801). Practical Observations on the Treatment of Ulcers on the Legs Considered as a Branch of Military Surgery. London. Important as a source of evidence concerning leg ulcers in the army. He recommended ligature of varicose veins above ulcers.
- 15. Stafford, R. A. (1829). An Essay upon the Treatment of the Deep and Excavated Ulcer, with Cases. London. He filled the ulcers with wax. There was reasoning, though tortuous, behind his method.
- 16. Spender, J. C. (1835). Observations on the Causes and Treatment of Ulcerous Diseases of the Leg. London. He was one of the first to believe that most leg ulcers were due to varicose veins. This was in contrast to Benjamin Bell⁹ who believed varicose veins were caused by leg ulcers and not the other way round.
- Periodicals. There are many articles and observations on leg ulcers in the *Edinburgh Medical and Surgical Journal* from 1805 onwards, and in the *Medical and Physical Journal* from 1800. See also, for a detailed account of ulcers, Abernethy, J., Astley Cooper, Sir, Home, Sir E. et al. (1823). Heads of lectures on ulcers. *The Weekly Medico-Chirurgical and Philosophical Magazine*, No. XXV, 2, 5-6, 24-25, 39-40, 54-59.
- 18. The Inquirer (1805). What are the comparative advantages of the different modes proposed for the treatment of ulcerated legs? *Edinburgh Medical and Surgical Journal*, I, 187-193. This is a very lucid account of opinion in 1805 on the treatment of leg ulcers.
- 19. At the General Court of Governors of the Devon and Exeter Hospital on 29 October 1744, it was decided to adopt the custom of St George's Hospital in London and admit "cases of such ulcers inflamed or tending to mortification [and] mark them as in-patients for a month or for a fortnight, not expecting a cure but to be capable of some relief during that

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time". In April 1779, the minutes record resolutions concerning "inveterate ulcers improper to be healed" and the "fruitless expense of entirely removing their present complaints when this would be *productive of more fatal consequences*" (my italics). *Records of the Devon and Exeter Hospital. Acts of the General Court of Governors.* Devon Record Office. 1260F/HM1 and HM2.

- 20. The author has never to his recollection heard this belief expressed by a patient but a number of general practitioners of his acquaintance have heard it, one of whom believes that district nurses are more likely to be told about it than general practitioners.
- Blane, Sir Gilbert. (1785). Observations on the Diseases Incident to Seamen. London. pp. 319-320. See also his (1815) Statements on the comparative health of the British Navy from the year 1779 to the year 1814. Medical and Chirurgical Transactions, 6, 460-473, and (1822) Select Dissertations. London.
- 22. Lind, J. (1753). A Treatise on the Scurvy. London. p. 152.
- 23. The surgeons' journals are to be found at the Public Record Office, Kew, the access number being ADM/101. Unfortunately, few have survived from the eighteenth century, and the earliest is 1793.
- Surgeons' journals. HMS Albion. ADM 101/82/3. Public Record Office, Kew.
- 25. The outbreaks of 'malignant ulcer' lie outside this study: most naval surgeons who saw it were adamant that it was something new, rare, horrifying and not seen on shore. See Trotter, T. (1797-1803). Medicina Nautica. 3 vols. 2, 170 et seq. and 3, 467 et seq. London. Also Gillespie, L. (1785). Observations on the putrid ulcer. London Medical Journal, 6, 373-410. See also surgeons' journals HMS Lion (1798-1800) and (1814-15). ADM 101/106/2, 106/3, 106/4. Public Record Office, Kew.
- 26. Monro, D. (1764). An Account of the Diseases . . . in British Military Hospitals. January 1761 to March 1763. London. p. 250: "The true scurvy, attended with spongy foetid gums of a livid colour, with livid blotches, and ulcers of the legs began to show itself at Bremen in January 1762."; McGregor, J. (1810). Observations on the sick landed from Spain. Edinburgh Medical and Surgical Journal, 6, 19-26. Out of 1,644 admissions to military hospitals in south-west England, wounds and injuries (260) and ulcers (208) were by far the two largest categories. See also reference 14 above.
- 27. Blane, Sir G. (1819). *Elements of Medical Logic*. London. p. 128.
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Preregistration experience remodelled

The Pharmaceutical Society's preregistration experience requirements are being remodelled. The principal changes will be the introduction of detailed aims and objectives; a required common core of experience for all graduates, with study days for those who cannot otherwise complete the common core; preregistration tutor seminars; an assessment procedure; and prior Council approval for joint schemes which involve at least six months in hospital or general practice, the remainder of the 52 weeks being spent in an industrial or academic establishment or an agricultural and veterinary pharmacy concerned solely with agricultural and animal pharmaceutical products.

The current requirements were introduced in the summer of 1972 and include the concept of approval of establishments and a description, in outline, of the experience required. Before 1972 there were virtually no requirements, but both students and pharmacists were pressing the Society for more guidance. Even after 1972 the pressure continued and the Council set up a working party in October 1977 to review the situation. Its report was published in the *Pharmaceutical Journal* dated 19 August 1978. Most of the working party's recommendations have been adopted in the new scheme.

During the consultations within the profession on the working party's recommendations there was a considerable feeling that neither industrial nor academic experience should be acceptable for preregistration experience purposes, and one of the resolutions of the 1979 branch representatives' meeting specifically called for the exclusion of academic experience. The Council did not accept those views but nevertheless decided that all of the joint programmes which involve an academic, an industrial or an agricultural and veterinary establishment engaged solely in agricultural and veterinary activities, should be approved by the Council before they commenced, and each programme should contain at least 26 weeks in hospital or general practice.

Source: *Pharmaceutical Journal* (1980). Preregistration experience remodelled. Editorial, 225, 161-163.