

## Personal viewpoint

### Why is peptic ulcer now a disease?

Physicians continue entranced with the 'problem' of peptic ulcer, even though it has decreased in frequency and is now so readily treated. Indeed, it has been promoted to the status of a disease, in part because technology lets physicians see ulcers 'face to face' while science lets us treat them logically. Moreover, the growing prominence of *Helicobacter pylori* as the cause highlights the physician as warrior and the patient as innocent victim of an alien invader or a polluted environment.

The eye dominates medical practice as physicians believe only in what they can see by modern technology, but the ear for the patient's story grows deaf: controlled trials focus on the ulcer crater and far less on ulcer pain.

I am convinced that the ulcer crater, no matter how sharp, provides only a signpost to a primary mechanism. *H pylori*, aspirin or non-steroidal anti-inflammatory drugs (NSAIDs), acid hypersecretion or a gastrinoma, and (for some of us at least) stress, can all cause peptic ulcer. Still, 'duodenal ulcer' has now been canonised as 'duodenal ulcer disease'.

Somehow, despite its seeming conquest by science and technology, duodenal ulcer continues a dominant theme at medical meetings, even though a decline in the incidence of uncomplicated duodenal ulcer ranges between 25 and 50%. Several explanations offer themselves for this paradox.

#### Technology

Fibreoptic endoscopes made it possible for physicians to see the ulcer crater in living colour where before they could only surmise what was going on from listening to the patient's story or from looking at black and white x ray films. 'Now we see as through a glass darkly, but then we shall see face to face' was never more true of doctors turned endoscopists. We believe mainly what we see.

#### Science

Firstly in the H<sub>2</sub> blockers, and latterly in the evidence for *H pylori*, we doctors come to see the continuing triumph of science over disease. To give a drug validated by the Nobel prize to a dyspeptic patient allows clinicians to share the feeling of being the scientists that our education and training, at least in the United States, over the past 75 years have told us we are. We fear that we deny science when we make a diagnosis simply from the patient's story.

The excitement over the alien invader – that is, *H pylori* brings gastroenterology into line with infectious diseases; the campaign against *H pylori* becomes no less important than that against AIDS. That an alien invader should be responsible for duodenal and gastric ulcer beguiles both physician and patient: physicians think of disease largely in martial terms while lay people rejoice in the hope that the environment gone astray – polluted – causes most disease, the Fall from Eden brought back in modern metaphor: 'It's not me, it's my mucus' that causes the ulcer.

Most physicians have lost enthusiasm for what earlier in our century was known as psychosomatic medicine – the

idea that the brain (or more properly the mind) led to diseases like peptic ulcer or colitis. So, braving the stresses of life made us responsible for some of our own troubles. At an international conference at Yale in October 1993, a respected European proclaimed 'Without *H pylori* there can be no ulcer', with a passion like that of medieval theologians proclaiming 'Ex cathedra nulla salus'. (Fortunately, almost all adults carry these alien invaders.) The discoveries of neurobiology may bring back the idea that in ourselves may lie the remedy for some of our troubles; but for now most physicians like to think of a peptic ulcer as being caused by infection, which can be fought with a salvo of antibiotics.

It cannot have escaped notice of the pharmaceutical industry that symposia on duodenal ulcer call attention to the therapeutic agents as they heighten awareness of what, earlier, used to be for many only a banal disorder, intractable in only a few.

#### The five senses in medicine

These trends are well known to all readers, most of whom will not share my scepticism. The growing commitment to precision and to the certainty of technology emphasises the certainty of the eye. Medicine has always seemed as 'religion of vision', and nowhere more than in the United States where the eye of God finds its place on the American seal and on the American dollar bill. Humans rejoice in five senses, but modern doctors rely mainly on what we can see.

*Smell* – the sense of smell is ignored in modern practice; where once physicians claimed they could make the diagnosis of diphtheria by its smell, and derided microbiological cultures as unnecessary, today almost no one refers even to the smell of hepatic coma or of gastrointestinal bleeding. Smell brings an emotional response, and emotion is banished now from medical practice.

*Taste* – of taste one need say less, for it keeps no place in gastrointestinal diagnosis. Tasting, so important to us as social beings, seems the most solipsistic of the senses, fit for pleasure but not for duty.

*Touch* – the sense of touch has atrophied in diagnosis as well. The long metaphorical fingers of ultrasonography have done away with much of what we doctors used to imagine we felt, and here doubtless for the better. Still, at least in northern cultures, the arm of reassurance around the shoulder, the right hand of fellowship, find little place. Few American physicians touch their patients, after the ritual physical examination, even to comfort them.

*Hearing and seeing* – only the eye and the ear remain important. Both lie close to the brain, but the eye dominates modern diagnosis, for it is quicker and seemingly more accurate. To see a pattern is to grasp it at once: you can see the wind moving the leaves on trees far away, but to hear that wind you must go much closer. It is easy to recognise a pancreatic cancer on computed tomography, far quicker than to hear the story from a patient in pain. Yet to hear the story may bring what Aristotle called catharsis; for other patients listening may bring a little relief, and help the patient gain new meaning even for pain.

But listening takes a long time. And we doctors have so little time.

Medical practice, of course, has long relied on the eye and the ear, on what the doctor sees and on what the patient tells. But even Hippocrates warned his students not to pay too much attention to what patients said, for they were lay people, where physicians were trained in diagnosis. You can follow the track through medical history; Lain Entralgo, the Spanish physician-philosopher, had much to say on these matters,<sup>1</sup> but his words are not widely read.

‘The eye is for accuracy, but the ear is for truth’, an aphorism not always accepted, may be telling us doctors something about controlled trials of peptic ulcer: disease – what the doctor can see at endoscopy – provides the criterion for healing, where illness – the pain the patient feels – is too hard to quantitate. Such trials have made clear how little relation pain has to the ulcer crater. Controlled trials focus, literally, on the healing of the ulcer and to a much less extent on how much difference that makes to what the patients feel. Ulcer like dyspepsia is largely ignored as too difficult to measure, too soft.

Physicians should pay as much attention to symptoms in controlled trials as we now do to the comings and goings of the crater, for there has yet to be evidence of a tight relation between the ulcer crater and the complaints of abdominal pain: why pain disappears so long before the ulcer awaits an explanation. All are pleased when an ulcer crater disappears, but we remain too silent about what difference it makes to dyspeptic patients. Moreover, one looks for published evidence that the abolition of a crater by even longterm treatment changes the outcome of bleeding or perforation.

Like the proverbial drunkard looking for a lost wallet under the street light although it has been lost elsewhere in the dark, we follow where our endoscopes shine. But it is not yet clear that the outcome for patients is as certain as the eradication of their craters. We physicians should pay as much attention to patients’ stories, to their symptoms, as to the ulcer craters so easy to see.

#### **Moynihan’s disease: a conceptual solution?**

To talk of ulcer disease is like talking of ‘The Dropsy’, an old fashioned term for oedema. Dropsy, which was once thought of as an entity dissolved into oedema, when it became a sign – or symptom – of many diseases. Ulcers, however, preserve their integrity. If physicians in English speaking countries had called peptic ulcer – Moynihan’s disease – after that famed British surgeon who removed more stomachs from his compatriots than anyone before or since, the crater might not have kept its prominence. To think of dyspepsia as Moynihan’s disease might have led to diagnostic criteria other than the crater: doctors might have characterised the disease by its physiology, into hypersecretory, hyposecretory, and normosecretory. As

many ulcers are silent and many patients with ulcer like dyspepsia have no crater, Moynihan’s disease might also have been divided into symptomatic, ulcerating, and healed stages. Indeed, if *H pylori* had become the domain of the infectious disease specialists, they might never have bothered to decide where the ulcer crater, if any, lay. With serum markers positive, they might have treated all dyspeptic patients for ‘Marshall’s disease’ and been satisfied to eradicate the infection. Indeed, it is surprising why we gastroenterologists are so keen to endoscope dyspeptic patients at all if *H pylori* is so ubiquitous. Why not treat first and endoscope only those who still complain?

Contrast the situation at the other end of the small bowel where the eponym of Crohn’s disease has avoided any aetiological imputations and where, in contrast with our habits in the duodenum, doctors never (before colonoscopy at least) looked for erosions or for aphthae, or counted them in controlled trials of treatment. A narrowed ileum on barium study was enough. (That too may be changing, alas – when colonoscopists find an ulcer or two, little erosions that may accompany an infectious diarrhoea as the hallmark of viral colitis now so common in patients with AIDS, they think first of Crohn’s disease.) In the appropriate clinical setting that may be all very well, but to take all erosions or ulcerations in anyone with diarrhoea to be Crohn’s disease may repeat our errors in the duodenum. An ulcer crater is important, but by itself it gives no final answer. To treat rationally, physicians need to find the cause.

American physicians are much criticised because we have little time, because we do too many procedures, because we have little interest in our patients as people. That comes in part from the way medical students are selected and trained in the United States: they must pass tests in organic chemistry to get into medical school, but they need know nothing about anthropology, sociology, or even philosophy. We have been trained as soldiers, as plumbers if you will, but that is not enough.

All of us doctors have had patients with dyspepsia who confess abashedly how their indigestion had disappeared since the appointment was first made. The healing connections between patient and physician reminds us that the power of the placebo, and even of alternative medicine, need far more contemplation over the next few years than hitherto. *H pylori* is an important participant, but it may not provide the final answer to the duodenal ulcer problem in our patients.

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<sup>1</sup> Entralgo PL. *The therapy of the word in classical antiquity*. Rather LJ, Sharp JM, eds+translators. New Haven: Yale University Press, 1970.