

DID THOMAS MORE HAVE A CERVICAL DISC LESION ?

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Not much attention has been focused on the illness from which More suffered, since it was not a direct cause of his resignation from the Chancellorship. The diagnoses which have been put forward are not very reliable. We will argue that he probably suffered from a cervical disc lesion of the lower cervical segments, which caused his chest pain, the cramps in his legs, and perhaps even the difficulty he had in writing during the last year of his life.

Although Erasmus described More, at slightly more than 40, « with the habit of carrying his right shoulder a little higher than the left », there is no other evidence to suggest that More had been suffering from lesions of the vertebral column or any other disease of importance during his childhood, adolescence or early adulthood. The only mention of his state of health is when, at the age of 47, he describes himself as lacking in strength on the occasion of his possible journey to Spain as ambassador. Indeed, it is unlikely that More would have been able to withstand the rigours of the life which he led, either at home or abroad, unless his health had been sound.

However, in June 1532, to explain why he had resigned as Chancellor, More wrote to Erasmus mentioning that he was suffering a tormenting chest pain (« *dolore crucior* ») from an unknown cause (Allen, Vol. X, No. 2659).

In a letter that More wrote to Cromwell early in 1534, More ascribes his chest ailment to the habit of stooping over his writing desk: « I prey you pardon me, that I wryte not vnto you of myne owne hande, for verelye I am compelled to forbear wrytinge for a while by reason of this disceace of myne, wherof the cheiffe occasion ys growne, as yt ys thoughte, by the stowpinge and lenynge on my breste, that I have vsed in wryting » (Rogers, p. 488).

In addition, More's health certainly deteriorated during his imprisonment. Much correspondence exists from this period. In Margaret Roper's letter to her stepsister Alice Alington, she says that on her visit to the Tower she « talked with hym, first of his diseases, both in his brest of olde, and his reynes now by reason of grauell and stone, and of the crampe also that diuers nightes grypeth hym in his legges » (Rogers, p. 514).

We can conclude, given the existence of stones in his urine, that More suffered renal colics. But, what was the other disease that accounted for his tormenting chest pain, cramps in his legs at night, and the difficulty he had in writing in his own hand ?

It has often been suggested that all these symptoms constituted a bout of rheumatism, as a result of the damp and cold in the Tower during his imprisonment. However, although the climatic conditions in the Tower must have affected his health to a certain extent, they cannot be considered the cause here since « the payne in his brest » appeared while More was still Chancellor, and was due -- in his own opinion -- to the habit of leaning and stooping while he was writing.

It is more reasonable to consider ankylosing spondylitis. This deformity of the vertebral column could cause the vertebrae to impinge on the medula, which is the soft neurological tissue contained therein. This phenomenon would explain both the cramp and chest pain. However, this is a disease which nearly always affects people under 30 years of age. Besides, in this disease, when the rigidity increases the pain is reduced, the opposite of what happens in our patient.

Based on the available information and without the logical possibility of X-ray or laboratory results, no infections or degenerative disease of the vertebral column could be considered as a direct cause of More's symptomatology.

In a well-documented study, Dr. Flegel¹ states that More's pectoral oppression was caused by a type of the heart disease known as angina pectoris, which is caused by lesions of the coronary arteries. Flegel points out the frequency of coronary artery disease in hard-working people like More and in those who are burdened by great responsibility ; his diet rich in animal fat and eggs which would have predisposed him to coronary disease ; and the excess of work, both physical and mental, which may have altered his sleep pattern. Flegel goes on to say that those suffering from angina pectoris usually complain of a discomfort, rather than a pain, in the centre of the chest. It is usually this pressure or aching sensation that gives more cause for concern than any other symptom. The sufferers may also experience a feeling of imminent death during an attack. It seems that More was also overcome by this sensation of death. However, in this type of disease, the above signs appear after exercise or emotion and disappear with rest. Since neither More nor anybody else makes even a slight reference to these extremes, Flegel sensibly concludes that it is not possible to establish for certain that More suffered from angina pectoris.

Without being able to examine the patient, we are in no better a position to affirm that More was in fact afflicted by a cervical disc lesion. Having pointed this out, our intention is only to make an approximate diagnosis. All the available information, together with the irradiated pain in the chest and the difficulty in writing (for which angina pectoris could not be the cause), suggest a diagnosis of a cervical disc lesion.

It is certainly true that cardiac lesions might produce pain irradiating towards the anterior side of the chest, the axilla, the arm and the cubital or lower internal part of the forearm. This is due to the fact that the skin which covers these parts of the body has its origin in the same segments from which these parts were formed during the embryonic stage. Hence, a cardiac lesion might manifest symptoms of pain beyond the heart, but not outside the limits of the growth of that segment from which the heart has developed. Would it be possible to attribute the pain which has irradiated to the chest, and perhaps even to the arm, to a cervical disc lesion without the existence of any cardiac disease ? In our opinion, the answer lies in understanding the segmentary and extrasegmentary pain,² which will now be explained.

A cervical disc lesion could appear, as might have been the case with More, when a person is stooping and leaning over a desk writing. When the vertebral column is in such a position, the posterior aspect of the vertebrae opens while the anterior one closes. Then, the intervertebral disc placed between each vertebra tends to move backwards. In fact, the existence of a posterior opening of the vertebral bodies in people who are in this position for a long time is known to displace the disc backwards, compressing the soft neurological tissue of the medula, situated behind the intervertebral disc. This phenomenon is known as a *disc lesion* or *slipped disc*. In this posterior displacement of the disc two possibilities can be considered.

When the posterior displacement of the disc is towards the centre, there could be compression of the duramater -- a very sensitive structure which is the external covering of the medula. This would give rise to pain in the upper part of the abdomen, and, more usually in the neck, the forehead, the pectoral and scapular regions. This pain, which on irradiating towards those parts of the body whose development proceeds from several different segments, is called *dural* or *extrasegmental pain*. More's « payne in his brest of olde » might well have been the result of this, since, if there were a posterocentral displacement of the discal lesion, the prognosis of the pain could be delayed indefinitely. Besides, it is usual for the patient to experience this pain in accordance

with the peculiarities that led Flegel to suggest the possibility of angina pectoris. If the discal protrusion continues to impinge on the duramater, it may press against the neurological structure of the medula -- which the duramater covers -- and even give rise to symptoms of paraplegia. However, if the cord pressure is less intense, only sensitive signs would appear in the legs, e.g. cramps and pins and needles at night, which More wrote that he had suffered from. Thus, at no moment can these symptoms be the result of angina pectoris.

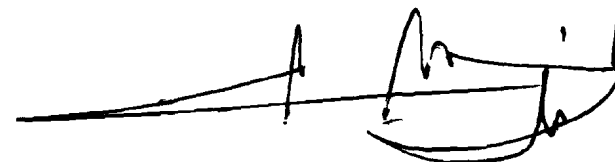
When the displacement becomes posterolateral or towards one side, it is not unfrequent for the postero-central disc lesion to be displaced laterally, from where the nerve roots for the limbs arise: the ones for the upper limbs from the cervical segments in the neck, and the ones for the lower limbs from the lumbar segments in the back. Then, if a cervical disc lesion protrudes on the nerve roots, the result might be pain and paralysis of part of the upper extremity, depending on the type and intensity of the compression. However, the paralysis now has a *segmentary distribution*, i.e., the paralysed muscles are those in connection with the damaged segment. More's difficulty in writing might have been a cervical disc lesion, that affected one of the lower cervical segments on the right side, since the muscles of the hand in relation to writing correspond to them.

But, as is known, there is no information on the pain or paralysis of the hand during the last months of More's life. This causes no difficulty for our diagnosis, because, when the disc lesion is left to follow its own course, it is usual for the pain and paralysis to disappear after a few months -- from the moment the painful neck movements become painless -- and providing that only one nerve root has been affected. Thus, if More did not experience pain or paralysis of his hand at the end of his life, this would not only confirm the existence of a disc lesion, but would also affect only one nerve root. Indeed, it would have been the 8th root that was affected, since it is this one that is most closely related to the movements of the thumb in writing.

In conclusion, with the historical medical data available it would seem that Thomas More had a cervical disc lesion several years before his death, probably caused by the habit of stooping and leaning in writing. This lesion caused his chest pain and the cramps in his legs during that time. Later on, while he was imprisoned in the Tower of London, the same disc experimented a lateral protrusion compressing the 8th nerve root on the right side, producing pain in his right arm and the difficulty he had in writing. Finally, his pain and paralysis disappeared

during the last few months, following a typical pattern of spontaneous recovery.

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1. K.M. FLEGEL, M.D. « Thomas More : was a sick man beheaded ? », *Morzeana* 49 (Feb. 1976), 15-27.

2. CYRIAX, J., « Textbook of Orthopaedic Medicine ». Vol. I, 8th edition. Ballière Tindall. London, 1982; HERNANDEZ CONESA, S., « A visual aid to the examination of nerve roots ». 2nd edition. Ballière Tindall. London, 1980; HERNANDEZ CONESA, S. « Exploración clínica del aparato locomotor en medicina ortopédica ». Científico Médica. Barcelona, 1980.

Editor's Note

A medical proofreader suggests changing the first sentence of the third paragraph of p. 29 to make it end « the posterior part of the intervertebral space opens while the anterior one closes. »

• Fall 1983.

In *CLIO*, reviewing Katherine R. Firth, *The Apocalyptic Tradition in Reformation Britain 1530-1645*, Rainer Pineas points out that, while Tyndale « was the first English Reformer to use history polemically, » he never interpreted it « in the light of prophecy, » as did John Bale (1495-1563).