

50 Years Ago in CORR

The Appearance of Osteoporosis in Ambulatory Institutionalized Males

Paul J. Vincent MD and Marshall R. Urist MD CORR 1961;19:245–252

Osteoporosis has been found among the oldest existing skeletons from ancient Egypt, the Middle East, and Europe [1, 3, 6, 7]. However, a recognition and understanding of the condition likely began in the first half of the 19th Century, when, in 1833, the French pathologist, Jean Martin Lobstein described the condition as one with holes in the bone associated with fragility [4, 5] and used two terms in his paper: “osteoporse” and “osteopsathyrose” (the latter with obscure meaning). He commented on an autopsy of a “man of sixty years in which almost all the bones began to soften at the age of eighteen years and then they degenerated into tumors. Yet these same spongy bones resumed their original strength when all were united. A review of the corpse suggested the swelling was due to a bone expansion of the reticular substance therefore osteoporosis.”¹ Regardless of the nature of the condition, Lobstein recognized the expansion of the marrow spaces at the expense of the trabecular bone. The term “osteoporosis” likely spread reasonably rapidly, as it is described in a German dictionary of medical terms in 1839 [9].

¹ Editors Note: I have taken some liberty with the translation to render into contemporary English based on what I presume to be his intent.

Table 1 Combined table showing the distribution of severity of spinal osteoporosis in ambulatory domiciliary-resident male war veterans and in females residing in a home for the aged

Number of patients		Degree of osteoporosis
Males	Females	
6	2	Expanded disks
7	4	1 collapsed vertebra + expanded disks
3	18	2–5 collapsed vertebrae + expanded disks
2	4	5–8 collapsed vertebrae + expanded disks

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The predilection for osteoporosis and its relationship to fractures, particularly in elderly women, was well recognized by the late 1800s. Bauer remarked on the work of Bruns [2]: “Thus, in 1882, the general pattern of the age and the sex specific incidence of various types of fractures was formulated clearly by Bruns in an impressive review of fracture epidemiology.” Less well recognized, however, was the occurrence in males, albeit with lower frequency. In the article highlighted this month, Vincent and Urist [8] studied a sample of institutionalized males without regard to symptoms and found a higher incidence of osteoporosis than anticipated. They commented, “Osteoporosis of the degree previously found in 26 per cent of institutionalized women with an average age of 85, and 76 per cent of women with fracture of the hip, was observed in only 5 per cent of males.

Table 4 Decade distribution of cases of spinal osteoporosis in males, symptomatic

Decade	Number of cases
3rd	2
4th	21
5th	32
6th	29
7th	15
8th	2

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The over-all incidence of both severe and moderate osteoporosis in the male was 18% (Table 1).” Interestingly, they found the incidence of symptomatic spinal osteoporosis (with vertebral fractures) “did not increase after age 65 (Table 4).” They further commented, “The incidence of

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osteoporosis in the 2 sexes is much closer than that indicated by previous studies. When consideration is given to the much greater age in the female group...the incidence in the 2 sexes becomes even closer.” “Asymptomatic patients represent an ideal group for the study of osteoporosis in the 2 sexes and constitute a natural selection of cases in earlier stages of the disorder.”

Perhaps not surprisingly, the apparent differential in occurrence of osteoporosis between the sexes depended upon the population sampled and, in effect, the questions being raised. Clearly, women are more affected, in part because they live longer and in part because they develop osteoporosis earlier than males [2]. Vincent and Urist contributed to the debate by looking at the issues from a different point of view.

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