

boundaries have been gradually expanded in both latitude and longitude, but not in thickness, the parts did not *grow*, as the pregnant uterus. The vessels elongate, but scarcely enlarge, they rather diminish in calibre, for instance, the epigastric artery which, in the natural state, reaches from Poupart's ligament to the upper section of the rectus, there to anastomose, with branches of the substernal—and lower intercostals, is scarcely nine inches long, while on the largely distended abdomen from pregnancy or tumors it is drawn out to twenty-four or twenty six inches, according to the degrees of stretching of the abdomen, which I have known will reach twenty-eight inches from the pubis to the ensiform cartilage. The veins will correspond in elongation, but not in capacity, they appear to superficial observers much larger than natural, while in reality they are not so; they, like all the other tissues, are merely expanded in length and breadth, but not in capacity, for, on close examination they will be found, although much broader than usual, to have no more or less capacity than usual, by reason of the approach of their anterior and posterior sides, rendering them into flattened tubes, which shape, however broad, is of small capacity, by reason of their diminished area. This state of the veins, it may be mentioned here, is very striking in appearance on the surface of any abdominal tumor, so much so, that I have heard spectators of an operation exclaim "how varicose the veins are," while no varicose state exists.

Once more: All the tissues that conspire to constitute the abdominal parietes are stretched by tumors equally. The skin so much so as to suffer long lines of partial rupture of its chorion, ruptures that are never recovered from, and which leave those marks constantly seen in women who have borne children, wrongly called *vergitures*. The muscles, their tendons and fasciæ also spread out greatly both in length and breadth, but not in thickness, for there is no growth. Each rectus, instead of being only two and a half inches wide, expands to four or more; its sheath increases proportionately, as I have seen when a bungling operator deviating from the medium line, has laid the sheath open, the edges of the muscles not reaching its breadth and not filling its capacity. The length of the rectus with its intervening tendons, in extreme cases, has been twenty-eight inches, instead of ten or eleven, the usual length. What the muscles just named have suffered, all accompanying tissues with their nerves and vessels, have undergone in equal proportion.

The consequence of this expansion is, when the distending force, the tumor, is removed, the parietes, whose contractility has been greatly overcome, and to some extent lost, recover their primitive proportions very slowly, but never completely. This recovery is not wholly due to con-