

smaller area indefinitely and increasing the larger area indefinitely, any force, however small, applied to the smaller area may, by transmission of pressure through the fluid, be made to support upon the greater area any weight, however large. Now, here we had the heart pumping blood through the artery into a closed cavity, and as the cavity enlarged so did the force increase.

Now, taking the pressure in an artery to be two pounds to the square inch, when four square inches of dura are separated we have a pressure of eight pounds pressing against it; when it is separated for three square inches in each direction, or nine square inches, the pressure equals eighteen pounds. The area of dura mater stripped off in this case we have just cited was measured and found to be five inches long antero-posteriorly, one and five-eighth inches in its greatest transverse diameter, and a greatest vertical diameter of one and one-eighth inches. This is approximately estimated to be about twelve square inches. We should, therefore, estimate that there was a force of twenty-four pounds exerted against the brain. The only resistance against this was the adhesion of the dura mater to the skull and the blood pressure in the capillaries of the brain substance. It is, therefore, not very surprising that we get such very marked effects from the force exerted by the escaping blood, and it is no great wonder, indeed, that the brain, so soft and delicate and so easily injured, becomes compressed into a small space and fails to expand when that pressure is removed.

There are a few further points of interest that I should like to draw attention to in regard to this case, points which are very remarkable and very extraordinary, indeed, when one considers the case in all its details:

1. The remarkably slight amount of concussion. After the accident he was found with his feet at the top of the waggon box and his head on the pavement. He was in somewhat dazed condition when assisted to his feet, but was able to go to his horse's head and quiet him while his effects were being gotten together. He subsequently was able to walk from King to Bloor Streets, a distance of about one and one-quarter miles, and after reaching his home to undress and retire.

2. The remarkably slow onset of symptoms and the great length of time elapsing before coma supervened. As we have stated, he was injured during the afternoon and walked home, during the night the paralysis on the left side came on. When brought into the hospital at twelve the next day he was still conscious of everything. Coma did not set in for a few days