nor does the hæmorrhagy ſtop until he faints away altoge­ther, when the ends of the divided veſſel cloſe by their na­tural contractility ; and if as much *vis vita* ſtill remains as is sufficient to renew the operations of life, he recovers after ſome time, and the wound heals up as uſual. The part of the artery which is below the wound in the mean time be­comes uſeleſs, and its ſides collapſe, ſo that all the in­ferior part of the limb would be deprived of blood, were it not that the ſmall branches ſent off from the artery above the wounded place become enlarged, and capable of carry­ing on the circulation. Nature alſo, after a wonderful man­ner, often produces new veſſels from the ſuperior extremity of the divided artery, by which the circulation is carried on as formerly. However, the conſequences of ſuch a profuſe hæmorrhagy may be very dangerous to the patient, by in­ducing extreme debility, polypous concretions in the heart and large vessels, or an univerſal dropſy. This happens eſpecially where the artery is partially divided ; becauſe then the veſſel cannot contract in ſuch a manner as to cloſe the orifice : however, if the wound is but ſmall, the blood gets into the cellular ſubſtance, ſwelling up the member to an extreme degree, forming what is called a diff*uſed aneuriſm.* Thus the hæmorrhagy ſoon ſtops externally, but great miſchief is apt to flow from the confinement of the extravaſated blood, which is found to have the power of diſſolving not only the fleſhy parts, but alſo the bones themſelves ; and thus not only the uſe of the limb is entirely lost, but the patient is brought into great danger of his life, if proper aſſiſtance be not obtained in a ſhort time.

Wounds of the ligaments, nerves, and tendons, are like­wiſe attended with bad conſequences. When a nerve is en­tirely divided, the pain is but trifling, though the conſe­quences are often dangerous. If the nerve is large, all the parts to which it is diſtributed below the wound immediately loſe the power of motion and ſenſation ; nor is it uncom­mon, in ſuch caſes, for them to be ſeized with a gangrene. This, however, takes place only when all or the greateſt part oſ the nerves belonging to a particular part are divided. If the ſpinal marrow, for inſtance, be divided near the head, the parts below ſoon loſe their action irrecoverably ; or if the bundle of nerves paſſing out of the axilla be divided or tied, ſenſation in the greateſt part of the arm below will probably be lost. But though a nerve ſhould be divided, and a temporary palsy be produced, it may again reunite, and perform its former functions. If a nerve be wounded only, inſtead of being divided, the worſt ſymptoms frequently ensue.

Wounds which penetrate the cavities of the thorax are always exceedingly dangerous, becauſe there is ſcarce a poſſibility of all the viſcera eſcaping unhurt. A wound is known to have penetrated the cavity of the thorax princi­pally by the diſcharge of air from it at each inſpiration of the patient, by an extreme difficulty of breathing, coughing v.p blood, &c. Such wounds, however, are not always mor­tal ; the lungs have frequently been wounded, and yet the patient has recovered. —Wounds of the diaphragm are al­moſt always mortal, either by inducing fatal convulſions immediately, or by the aſcent of the ſtomach, which the preſſure of the abdominal muſcles forces up through the wound into the cavity of the thorax ; of this Van Swieten gives ſeveral inſtances.— Even though the wound does not penetrate into the cavity of the thorax, the very worſt ſymptoms may follow. For if the wound deſcends deeply among the muſeles, and its orifice lies higher, the extravaſated hu­mours will be therein collected, ſtagnate, and corrupt in ſuch a manner as to form various ſinuſes ; and after having ero­ded the pleura, it may at length paſs into the cavity of the thorax. The matter having once found a vent into this cavity, will be continually augmenting from the diſcharge of the ſinuous ulcer, and the lungs will at laſt ſuffer by the ſurrounding matter. If, in caſes of wounds in the thorax, the ribs or ſternum happen to become carious, the cure will be extreme­ly tedious and difficult. Galen relates the caſe of a lad who received a blow upon his ſternum in the field of exerciſe : it was firſt neglected, and afterwards badly healed ; but, four months afterwards, matter appeared in the part which had received the blow. A phyſician made an inciſion into the part, and it was ſoon after cicatrized : ſhut in a ſhort time a new collection of matter made its appearance, and upon a ſecond inciſion the wound refuſed to heal. Galen found the ſternum carious ; and having cut off the diſeaſed part, the pericardium itſelf was obſerved to be corroded, ſo that the heart could be ſeen quite naked ; notwithſtanding which, the wound was cured in no very long time.

There is ſometimes difficulty in determining whether the wound has really penetrated into the thorax or the abdo­men ; for the former deſeends much farther towards the ſides than at the middle. But as the lungs are almoſt al­ways wounded when the cavity of the thorax is penetrated, the ſymptoms ariſing from thence can ſcarcely be miſtaken. —Another ſymptom which frequently, though not always, attends wounds of the thorax, is an emphyſema. This is occaſioned by the air eſcaping from the wounded lungs, and inſinuating itſelf into the cellular ſubſtance; which being pervious to it over the whole body, the tumour passes from one part to another, till at laſt every part is inflated to a ſurpriſing degree. An inſtance is given in the Memoirs of the Royal Academy, of a tumour of this kind, which on the thorax was eleven inches thick, on the abdomen nine, on the neck six, and on the rest of the body four ; the eyes were in a great meaſure thruſt out of their orbits by the inflation of the cellular ſubſtance ; and the patient died the fifth day. This was occaſioned by a ſtab with a ſword.

Wounds of the abdomen are not leſs dangerous than thoſe of the thorax, on account of the importance of the viſcera which are lodged there. When the wound does not penetrate the cavity, there is ſome danger of an hernia be­ing formed by the protruſion of the peritonæum through the weakened integuments, and the danger is greater the larger the wound is. Thoſe wounds which run obliquely betwixt the interstices of the muſcles often produce ſinuous ulcers of a bad kind. For as there is always a large quantity, of fat interpoſed everywhere betwixt the muſcles of the ab­domen, if a wound happens to run between them, the extravaſated humours, or matter there collected, not meeting with free egress through the mouth of the wound, often makes its way in a surprising manner through the cellular ſubſtance, and forms deep ſinuoſities between the muſcles in which caſe the cure is always difficult, and ſometimes impoſſible.

If a large wound penetrates the cavity of the abdomen, ſome of the viſcera will certainly be protruded through it or if the wound is but ſmall, and cloſed up with fat ſo that none of the inteſtines can be protruded, we may know that the cavity of the abdomen is pierced, and probably ſome of the viſcera wounded, by the acute pain and fever, paleneſs, anxiety, faintings, hickcough, cold ſweats, and weakened pulſe, all of which accompany injuries of the internal parts. The miſchiefs which attend wounds of this kind proceed not only ſrom the injury done to the viſcera themſelves, but from the extravaſation of blood and the diſcharge of the contents of the inteſtines into the cavity of the abdomen ;which, being oſ a very putreſcent nature, ſoon bring on the moſt violent diſorders. Hence wounds of the abdominal viſcera are very often mortal. This, however, is not always the caſe, for the ſmall inteſtines have been totally divided,