

form. The connection with alcohol is perfectly clear, though it was not brought out by Dr. Moxon, nor has it been insisted on in the other cases brought before the Society. We have three cases in all; Dr. Moxon's (vol xxiii), where two brandy bottles were found under the patient's pillow; Dr. Cayley's (vol. xxxiv), in a drinker of spirits; and Dr. Carrington's (vol. xxxvi), which occurred after hard drinking for six weeks. The last I had the opportunity of examining as a member of the Morbid Growths Committee, which gave it the same name as I have done. Dr. Cayley, indeed, suggested that the atrophic process supervened on a chronic cirrhosis; but, taking the three cases together, it would seem that the parenchymatous and interstitial parts of the organ were concurrently affected; the former undergoing, as the usual law is, atrophy and necrosis; the latter showing ordinary inflammation. But if there was any difference in order of time, the parenchyma would be likely to suffer first. I suggest the same explanation for common cirrhosis, and shall return to the same point in speaking of the nervous system.

Another question of interest bearing on cirrhosis is why is it so comparatively rarely found in the bodies of drunkards. Peters found it in four or five cases only out of seventy persons who died from the excessive use of ardent spirits. What other factor is concurrent with alcohol in producing it? Is it ever set up by the action of any liquors other than distilled spirits or strong wine, such as sherry?

EFFECTS OF ALCOHOL ON THE NERVOUS SYSTEM.

While the functional disturbances produced by alcohol on the brain are the most familiar evidence of its action, and, when excessive, have long been recognised as the most deleterious of its results, the actual textural changes produced by it have only been demonstrated in comparatively recent times.

The demonstration of organic changes in the nervous system began, as was natural, with the brain, and with observations of alterations visible to the naked eye. I will first speak of changes in the meninges.

The dura mater has been very frequently observed to be thickened, the Pacchionian bodies largely developed. Vascular congestion has been frequently described, but the conditions immediately preceding death and the manner in which the necropsy is made influence so decidedly the amount of blood contained in this part that the observation has not any very great value. More rarely a special change of the dura mater has been described—namely, chronic pachymeningitis, sometimes in the form of the so-called pachymeningitis hæmorrhagica, or hæmatoma of the dura mater. This curious condition has been explained by Virchow as produced by a combination of exudative inflammation with hæmorrhage. It is certainly sometimes connected with atrophy of the brain. This is among the rarer results of alcoholic poisoning, though it is described by Lancereaux, Greenfield, Magnan, and others as occurring in cases of chronic alcoholism and delirium tremens, and is also found in chronic dementia and other cases in asylums. Without discussing fully the origin of this condition, I will only say that hæmorrhage into the arachnoid cavity is certainly the most important factor, and capable alone of producing the appearances in question, as is shown by such cases as that recorded by Dr. J. W. Ogle, where the immediate cause was injury in an alcoholic person. Hæmorrhagic pachymeningitis has also been produced artificially in dogs by poisoning them with alcohol in even as short a time as four weeks.

The visceral arachnoid and pia mater must necessarily, for purposes of pathology, be considered together. Thickening and opacity are the most constant changes observed, but in certain cases there is much vascular congestion, with small patches of ecchymosis. But the one most frequent appearance in the sub-arachnoid spaces, as well as in the arachnoid cavity, and to a certain extent in the internal cavities of the brain, is excess of serum. This is so marked that those accustomed to post-mortem examinations would generally say that a drunkard's brain is a wet brain.

Now, it is hardly necessary to point out that a similar condition is very gene-