

catamenia, &c., not produced by any hemorrhage, in which antispasmodics are useless. It is very refractory, and is commonly accompanied by symptoms of greater severity than are witnessed in other varieties of anæmia. It may last for an indefinite period of time, and does not permanently yield to any treatment, however well designed, which may be tried; for should it be removed, it will often recur without apparently any cause.

In all the foregoing exceptions, then, anti-spasmodics are powerless. Their exclusion leaves but one variety in which these agents are allowable, and it is this:—Spanæmia that supervenes, mysteriously, without any appreciable remote cause, but clearly depends upon the blood ingredients being coupled together in quantities disproportionate to the healthy measure, in which the most conspicuous features are pallor of blood and fullness of the vessels, owing to the red globules being deficient in number and the vessels containing an excess of water, the *polyhæmia seruse* of Beau; where co-exist arterial souffles with a pulse preternaturally full in volume, and neither dropsy nor albuminuria are ordinary attendants.

Anti-spasmodics operate in several ways.

1. By an action upon the blood. This is the most remarkable or notorious. They render the blood healthy, and attain this object chiefly by increasing the number of red corpuscles, and by augmenting the quantity of hæmatosine, both relatively, as is to be inferred from the former change, and absolutely, by increasing the proportion of that which previously existed. They also enlarge the proportion of albumen and augment the amount of solid constituents, and thus heighten the specific gravity of the plasma: they diminish the excess of water and lessen the quantity of fibrine; and furthermore, they reduce the extractive matter and salts. Of these various changes the most obvious, because the most easily discovered, is the augmentation in red globules. Simon refers to a case wherein their proportion rose from 32 to 95 in the 1000 after a few weeks of treatment. This effect has led some to overlook the other changes that proceed contemporaneously, and to believe that the action of the medicine was of a more simple kind than it is in reality. From a principal constituent of the hæmatosine being iron, and from this remedy being generally useful in such cases, it has been hastily inferred that it was merely a restorative, and improperly supposed to act merely deposited in the blood the amount of itself of which this fluid was deficient. But this opinion is not countenanced by the multiplicity of collateral changes that are likewise wrought; as well as by the argument before defined of non-ferruginous articles producing similar changes,—