VI.

Observations on Abortion; containing an Account of the Manner in which it takes place, the Causes which produce it, and the Method of preventing or treating it. By John Burns, Lecturer on Midwifery, and Member of the Faculty of Physicians and Surgeons in Glasgow. London. 1806. 8vo. pp. 139.

The author of the little volume now before us is already favourably known to the profession by his dissertations on inflammation, and by a small work on the gravid uterus; and, with
Mr. Burns on Abortion.

with the latter, the subject of the present treatise is in some measure connected. The subject of abortion is one of considerable practical importance, and, in many points of view, highly interesting. There are few situations in which the intelligent practitioner can give more useful advice than when consulted in cases of habitual and of threatened abortion; nor, when we consider the alarm, and sometimes danger, which attends the progress of actual abortion from sudden and profuse floodings, is there any which requires more prompt and active assistance. Even when this first danger is over, when the abortion has been completed, and the hemorrhage suppressed, the patient is often left in a state of weakness, and sometimes of disease, which claims the attendance of the physician. But the principles of our conduct in these cases are necessarily grounded on a knowledge of the anatomy and of the functions of the ovum and gravid uterus, and of the causes of those deranged actions which bring on abortion. These general principles, and the prevention and treatment of abortion, are perspicuously explained by Mr. Burns under the following heads: The formation of the ovum. The manner in which abortion takes place; The causes giving rise to abortion; The prognosis; The prevention and treatment of abortion.

The observations of our author on the structure of the ovum, and the view he has taken of the formation of some of its parts, are new and interesting. He describes the decidua as entirely of vascular formation, tracing its origin to an elongation of the vessels of the fundus uteri, or to a new efflorescence or growth of delicate vessels shooting perpendicularly from the uterine surface. From these primary vessels, again, there springs, according to Mr. Burns, a fine vascular tissie, in the opposite direction, or parallel to the uterus; and this secondary production constitutes what has been called the decidua reflexa. But as this account of the formation and structure of the ovum has already been laid before our readers in the Fifth Number of our Journal, it becomes unnecessary to offer any further remarks on these ingenious observations of our author in this place.

The manner in which abortion takes place includes the account of its phenomena and symptoms. When it happens within three weeks after impregnation, the symptoms differ little from those of menorrhagia; there is a copious discharge of blood and coagula; but, as the vascular ovum has not at this early period descended into the uterus, the characteristic mark of abortion is wanting; the primary vessels are so small, that they cannot be detected in the discharge. But though nothing
thing but coagula can be perceived, the discharge, we are told, generally continues till the small vessel passes out of the fallopian tube; then it stops, and an oozing of serous fluid finishes the process. Mr Burns does not inform us how this passing of the vessel out of the fallopian tube has been discovered, or may be known, otherwise than by the cessation of the hæmorrhage. When, indeed, the vessel has come into the uterus before abortion takes place, it may sometimes be detected in the first discharge of blood, at an early period of gestation. The distinguishing features of abortion in the more advanced period of gestation, between the second and third month, are, uterine pain and contraction, discharge of blood, of the fætus and secundines.

These symptoms, and the various appearances, are accordingly marked and well distinguished by Mr Burns. But there are also some precursors or signs of the cessation of the action of gestation very material for the practitioner to be acquainted with. On this subject Mr Burns remarks, "There is generally, for a longer or shorter time before the commencement of abortion, a pain and other irregular actions of the neighbouring parts, which give warning of its approach before either discharge or contraction take place, unless it proceeds from violence; in which case the discharge may instantly appear." We wish Mr Burns had been more particular on this subject, for there is danger that these symptoms be confounded with the more chronic ailments that accompany pregnancy. Pain and irregular actions in the neighbouring parts are common at this period in many women, who yet carry well, and go on to their full time. Are there, then, no signs which, together with these, announce that the fætus is blighted, that the action of gestation has ceased? We know not why Mr Burns has omitted the sudden and premature cessation of the morning sickness, and softness of the mammae, which, when they do occur with pain and irregular action, are regarded as signs that the action of gestation is over, that the fætus is blighted, although no more palpable signs of abortion may have appeared. The state of the cervix uteri may afford also useful information.

The causes giving rise to abortion are very fully and ably investigated. Those of accidental abortion are often sufficiently obvious. But the causes of habitual abortion, and of those cases which are not purely accidental, are involved in much greater obscurity. A predisposition to abortion in some individuals must be allowed to exist. This predisposition is referred by our author generally to an imperfect mode of uterine action,
action, induced by age, former miscarriages, and other causes, as by an immoderate and indiscriminate use of venery. A change of structure also in some part of the uterus may render it unfit to continue the action of gestation, and give rise to premature expulsion. It is easy also to conceive how a general weakness of the system may interfere with the perfect discharge of the uterine functions; or the uterus may be affected by sympathy, with some other organ weakened or deranged, and thus lay the foundation of abortion. Thus, the loss of tone, or diminished action of the stomach, produces amenorrhea, and it may also induce abortion. Some important facts, connected with these sympathies, are engraved by Mr. Burns on a particular theory which he had formerly endeavoured to establish in his dissertations on inflammation. The leading principle of this theory seems to be, that, when the action of any organ is increased, other parts must be deprived of a portion of their energy; or, to use the author's own words, "We have a certain quantity of action present in the system at large, and properly distributed amongst the different organs, forming an equilibrium of action; and if one organ act in an over degree, another which is connected with it, will have its action lessened, and vice versa.

Applying this doctrine (which it is not our business to examine) to the cases of abortion under consideration, Mr. Burns observes, "There being increased action of the uterus in gestation, requiring an increased quantity of energy to support it, we find that the system is put, pro tempore, into an artificial state, and obliged either to form more energy, which cannot be so easily done, or to spend less in some other part. Thus the function of nutrition, or the action by which organic matter is deposited in room of that which is absorbed, often yields or is lessened, and the person becomes emaciated, or the stomach has its action diminished, or the bowels, producing constiveness and inflammation. If no part give way, and no more energy than usual be formed, gestation cannot go on, or goes on imperfectly. Hence some women have abortion, induced, by being too vigorous; that is to say, all the organs persist in keeping up their action in perfection and complete degree." Another source of tendency to abortion is found by our author in the too readily yielding of other organs, allowing the uterus to act too easily. The intestines may yield too easily, and, becoming torpid, induce constiveness; or the muscular system may yield too much, and become enfeebled. Mr. Burns considers this doctrine to be of much practical importance in directing the means of correcting habitual abortion. "Much attention should be paid to the
state of the principal organs of the body; for, if we confine our attention merely to the uterus, we shall often fail, when otherwise we might succeed; and it will be necessary to remember that the chain of sympathies in gestation is often extensive and complicated.” The state of the stomach, for example, may give rise to headache, toothache, &c. and often it is dangerous to remove these remote effects. It throws too much energy to the uterus and may be productive of abortion, as the pulling of a pained tooth sometimes restores the menses in cases of obstruction.

After having fully examined the predisposing causes, or those which lay the foundation of habitual abortion, our author proceeds to state and to explain the operation of the various remote or exciting causes of abortion. These are such a degree of violence from falls, blows, violent exercise, and the like, as may injure the child, and detach the ovum; the death of the fetus from disease peculiar to itself, or to its placenta; strong passions of the mind; stimulating, emmenagogue, and purgative medicines; the accession of morbid action or inflammation in any important organ, exemplified in eruptive diseases; mechanical irritations of the os uteri; tapping the ovum, and escape of the waters. But for many ingenious observations and useful remarks, connected with the examination of these causes, we must refer to the work itself.

The medical treatment of abortion embraces the means of prevention when anticipated, the method of checking it when immediately threatened, and the proper method of conducting the woman through it, when it cannot be avoided.

On these subjects we can promise the student much information, and the practitioner many useful hints, from a perusal of the work of Mr. Burns. We shall content ourselves with noticing one or two examples of what appears to us new in the opinions or practice of our author.

“I have already mentioned that abortion is sometimes the consequence of too firm action, the different organs refusing to yield to the uterus, which is thus prevented from enjoying the due quantity of energy and action. These women have none of the diseases of pregnancy, or they have them in a slight degree. They have good health at all times, but they either miscarry, or have labour in the sixth, seventh, or eighth month, the child being dead; or, if they go to the full time, I have often observed the child to be sickly, and of a constitution unfitting it for living. We may sometimes cure this state by giving half a grain of digitalis, and the eighth part of a grain of the tartris antimonii, every night at bed-time, which diminishes the stomachic action. Bleeding is also useful, by making the organs
organs more irritable. Exercife, fo as to prove tonic, is hurtful in this species of abortion; instead of willing to increase the action of any organ, our object is to diminish it, and make the different parts more easily acted on."

The digitalis seems a favourite remedy with Mr Burns, and is recommended by him under every circumstance of abortion and flooding, where it is our indication to diminish vacular or organic action. This doctrine, too, and practice of attending to the state of the sympathizing organs, and of lowering or raising their action, is applied in a variety of cases. We agree with Mr Burns that the hemorrhage which attends abortion can do no good, and that in every case, it is our business to moderate and restrain it. The principal means of effecting this is by the application of cold, by plugging the vagina, and by the use of digitalis. But we do not altogether subscribe to Mr Burns’s proscription of manual assistance. We are decidedly of opinion that no violence is to be used; but we know that the flooding is often protracted by the retention of the whole or part of the ovum or secundines, which it is sometimes in our power to reach with the finger, and to remove to the great advantage of the patient. We do not recommend any attempt to dilate or force the os uteri in abortions of the earlier months; but, when the flooding is protracted from retention, the practitioner should examine, and, if within the reach of his finger, he may attempt, and will sometimes easily accomplish, its removal.

While we have much to praise in the plan and execution of this treatise, we regret to observe the careless manner in which it has been printed, a circumstance we must attribute to the distance of the author from the press. Most of the typographical errata are noted and corrected; but others have escaped notice. There is one error in the dose of digitalis, page 132, to which we especially request the reader's attention.

The receipt should be thus corrected:

- TinÆ. Digitalis 5 1fs.—for 5 1fs.
- Hyosciami 3 i.—for ExtrÆct. Hyosciami.
- Emuls. Camphorat. 5 iv. misce.

VII.