is the placental site. As the exact position of this is rarely known the entire uterus is compressed in order that the placental site may not be missed. The compression of the placental site is calculated to check *all* haemorrhage, arterial and venous.

Bimanual compression of the uterus, the internal hand being within the uterine cavity, has been advocated as having the following advantages over the above method—the better emptying of the uterus of blood; the more direct compression of the placental site; a greater stimulus to the uterus to contract. Granted that in each method reasonably strong pressure is exerted, then it may be said of the intrauterine method that its first advantage is probably *nil*, at most very slight; its second is *nil*; its third is real, but probably not great. The outstanding disadvantages (they imply the corresponding advantages of the vaginal method) are (1) that a larger area of the flaccid uterine wall will escape compression, and this area may contain the whole or part of the placental site; and (2) the greatly increased risk of intrauterine sepsis, and this in a patient but ill fitted to cope with it. This risk is very great, for the urgency of the case forbids time being spent in any attempt at surgical cleanliness of the hand immediately before its introduction.

Of the two methods, the intrauterine one has slight advantages, serious disadvantages. The balance of value is obvious.

Elevation of the Bleeding Area.

This is of the first importance on account of its efficacy, simplicity, and facility. The more nearly the patient's inverted trunk is to the vertical the more effective is this haemostatic. The effects of this position are that venous haemorrhage by regurgitation is rendered practically impossible, whilst arterial bleeding is greatly diminished. Indeed, where much blood has already been lost, and consequently the heart's action is feeble and the blood pressure low, it is probable that little, if any, arterial haemorrhage would occur even were no other treatment resorted to.

But further important effects follow. Elevation of the pelvis not only automatically lessens or arrests bleeding, it also by gravity drives the unshed venous blood back to the heart and facilitates the flow of blood to the brain, in both of these ways stimulating circulation and respiration at precisely the time when this is most urgently needed. Nay, further, should the patient's condition seem desperate despite these measures, it is enough in addition to have the four limbs held vertically up to secure that practically all the blood in the body is (anatomically) above the level of the navel. If this cannot secure enough blood nourishment to the vital centres there is nothing that can do so short of the introduction of fluid from without. The elevated position recommended greatly facilitates the rapid introduction and retention of such fluid—for example, enemata of hot saline solution.

The degree of elevation here advocated may suggest a risk of air embolism from "adsorption" into the uterus and thence to the uterine veins on withdrawal of the vaginal hand. Whatever this risk might be it is counteracted by two precautions, namely, (1) uterine contraction; the hand is not to be withdrawn from the vagina until this natural preventive is in active operation; while it is so in operation air may enter the vagina, but cannot enter the uterus; (2) closing the vaginal orifice with a wet pad on the vulva as the hand is withdrawn. This prevents a rush of air into the vagina.

CONCLUSION.

In the foregoing remarks I have sought to emphasize the great importance of high elevation of the pelvis as a *primary* measure because I know of no contra-indication to its use; because it does not interfere with any other appropriate measure of treatment; because it promptly, simply, and effectively deals with the immediate cause of great danger; and because it continues to act in the promotion of the patient's subsequent recovery. It is almost incredible that there have not been many men who on many occasions have used to check *post-partum* haemorrhage a measure so simple, easy and effective, resting on a principle so familiar as the law of gravity, and taught and employed time out of mind in connexion with wounds of the extremities. I have there-

fore been surprised to find that of the many obstetricians, general and special, to whom I have mentioned the matter in conversation, every one found the suggestion a novelty. I have looked up a number of English and American textbooks on midwifery. In none of these did I find any mention of this measure of treatment. It is true that elevation of the pelvis by raising the foot of the bed after arrest of haemorrhage has been secured is mentioned. But the employment of the high position as a primary measure rests on a quite different conception from the other. From that the elevation advocated in this paper differs in its object, its degree, and in the time and mode of its application. There would thus appear to be some ground for thinking that familiarity with the use of this measure is not as wide as it might be. It is for this reason that I have sought to call special attention to its value.

Of the whole line of immediate treatment advocated above, the essential value lies in these facts:—it is simple in application; it is prompt and effective in action; and it is entirely personal in its mechanism; that is, it is independent of environment, it needs no "apparatus," it is carried out as easily in a hut as in a hospital.

CAESAREAN SECTION IN A PITMAN'S COTTAGE.

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ON September 7th, 1915, I was asked by Dr. Anderson, of Seaham Colliery, to see a patient who had been fifteen hours in labour at full time without any signs of the head engaging in the pelvis. There was a history of two previous labours which had ended in the sacrifice of the child.

Measurements showed the conjugate diameter to be just over 3 in., and the promontory of the sacrum was within rather easy reach by digital examination.

As the parents were very unwilling to risk the loss of another child, and as the conditions demanded either craniotomy or Caesarean section, I elected to do the latter.

There was one clean room available; the removal of superfluous ornaments, hangings, and furniture was followed by a cleansing with a damp cloth and the spraying of the walls, floor, and ceiling with formalin; the room was then closed for two hours; this gave me the nearest approach possible in the circumstances to the surroundings of an operating-room. Meantime detailed preparations were made for the sterilizing of all necessary articles. Two drums of sterile dressings and masks can always be at hand, but in addition I transported a small Cathcart sterilizer, which was placed on a gas ring, and towels and gowns were steamed, sterilized, and dried in this. Instruments and gloves were easily dealt with in the small portable sterilizer contained in most operating bags. The skin of the patient was prepared in the usual way, and after being thoroughly dried, was coated with a 2½ per cent. solution of iodine in spirit and water.

Preparations were all completed within three hours from the time the message was received; the patient's condition was good, the pains strong and frequent, and re-examination revealed not the slightest progress.

The details of the operation scarcely differed from the description in Berkeley and Bonney's *Gynaecological Operations*, and included the use of boiled silk throughout except for skin sutures. A variation from their technique was, I think, a slight improvement for the prevention of haemorrhage from the cut uterine surfaces. A large vulcanite pessary was boiled along with the instruments, moulded to the shape of a carouche, fixed in this position by tying with silk while it was still plastic, and re-hardened in cold, sterile water. By pressing firmly on one side of this myself, and the assistant doing the same on the other side, we had no difficulty in avoiding bleeding. I believe this method was suggested years ago by Professor Murdoch Cameron of Glasgow.

The child, a girl weighing 8 lb., was easily removed and breathed at once. It lacked the usual frontal and occipital moulding of the ordinary baby, and therefore looked more

like a child a month old. The mother made an uninterrupted recovery; the pulse never rose above 76, and the temperature was normal throughout, not showing even the ordinary rise when the milk flow was established on the third day.

An examination of the pelvic brim from inside showed the promontory of the sacrum projecting forward and considerably larger and wider than usual. The os was very fully dilated, and there was free drainage by the vagina in the normal way.

I should much have preferred the comfort of a nursing home for this operation, but it was not possible, and I am convinced that many operations involving the transport of the patient by road could quite well be done at home. Except for the air and dust of the ordinary room, one can have all the other essentials of complete asepsis, provided one has a good surgical nurse. But, of course, it is more trouble.

In 1907, at the spring meeting of the Northumberland and Durham Medical Society, I showed a number of major abdominal operations done in private houses, and an interesting discussion took place on the possibility of doing most operations in the homes of patients, and thus relieving the pressure on hospitals.

I was much indebted to Dr. William MacMurray for valuable help, to Dr. Anderson for very efficient anaesthetizing, and to Nurse French for vigilant preparations both before and after the operation.

THE INFLUENCE OF SYPHILIS ON THE CHANCES OF PROGENY.

BY

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THE effect of syphilis on the child-bearing capability of a woman is well-known, but there are few definite figures that set out this common knowledge in an easily remembered fashion; for this reason the figures presented in this paper may be of interest.

At the annual meeting of the British Medical Association in Aberdeen (1914), I presented to the Ophthalmological Section a paper giving a return of the causes of blindness in eleven hundred children, with special reference to the influence of venereal disease.¹

In the investigation of the case-papers of these 1,100 children I found, in a large number of cases of children whose blindness was the undoubted effect of parental syphilis, that I had investigated the family history—that is to say, the mother of the child had been seen and the history of her married life, so far as its results in the matter of pregnancies and the results of these pregnancies were concerned, had been tabulated. These detailed family histories number 150. In each of these families one or more of the children had been under my care, often for many years, and were undoubted sufferers from congenital or inherited syphilis. Besides the state of blindness due to this cause, either by reason of interstitial keratitis, iritis, or disseminated choroiditis, there were other indubitable signs of syphilis in Hutchinsonian teeth, the characteristic physiognomy, radiating scars at the angles of the mouth, evidence of bone or joint disease, ulceration of the nose or palate, deafness. Whatever may be said for and against the evidential value of the widely-used blood tests for syphilis, there is no doubt in the minds of any one of the certainty of the evidence presented by the finding of these other clinical features. Hutchinsonian teeth alone give certainty; the association of this form of teeth with one or more of these other clinical characters provides a superabundance of certainty. This was the fact with regard to these 150 families; in no less than 68.5 per cent. Hutchinsonian teeth were present in the blind child of the family, and besides the teeth, one, two, or three other symptoms were noted. In those cases where the evidence of the teeth was lacking there were the other symptoms in sufficient number to leave no room for doubt as to the cause of the state of blindness.

TABLE I.—One Hundred and Fifty Syphilitic Families.

No. of Pregnancies for each Mother.	No. of Families.	Healthy Children.	Mis-carriages.	Still-births.	Infant Deaths.	Affected by Syphilis.
18	1	10	—	—	7	1
17	1	6	2	7	1	1
16	1	1	—	—	14	1
15	1	6	2	1	5	1
14	3	11	5	7	13	6
13	5	17	4	10	26	8
12	4	21	6	7	11	3
11	10	50	8	6	33	13
10	7	32	8	3	18	9
9	10	33	11	7	22	17
8	16	54	21	7	17	27
7	15	50	9	4	18	24
6	14	24	3	8	14	25
5	11	23	3	6	6	17
4	17	22	4	5	19	18
3	13	15	2	1	3	17
2	10	4	1	1	3	11
1	11	—	—	—	—	11
Totals ...	150*	390	92	80	229	210

* = 1,001 pregnancies.

Amongst the eleven families to which only one child was born there were four illegitimate unions and the progeny therefrom; all these eleven were blind children and alive at the time of the inquiry.

The column "healthy children" includes all those children reported healthy by their parents or guardians. In the majority of cases it was not possible to examine them, so that the statement of health must be taken with reservations. It also includes those children who had died from accidental causes or from febrile conditions from the age of 3 years and onwards where there was no reason to suspect that the fatal disorder was connected with syphilis.

The column headed "affected by syphilis" includes all those seen by me and ascertained to be the subjects of definite syphilitic conditions. Taking into consideration the statement made regarding those entered as "healthy" it will be seen that any error in the table under-estimates the number of the syphilitic and over-estimates the number of "healthy."

The history of these 150 families set out by themselves would provide a characteristic picture; but for the proper appreciation of this picture it is necessary to set beside it another picture, one giving the family history of an equal number of women who were neither the subjects of syphilis nor the progenitors of syphilitic children. This second picture has been prepared, and the contrast between the two is interesting in the extreme. The standard of comparison provided in this second picture was obtained by an inquiry into the family history of a number of women who were attending the West London Hospital. This hospital has a very large *clientèle*, and the patients are amongst the poorest and most deserving of charity of any attending the great London hospitals. On the average these women were if anything a little poorer than the average of the syphilitic parents whose family histories mainly concern us. The history of 150 women was inquired into; there was no selection of cases, except that where one of known syphilitic history was found she was excluded from the count. But no special measures were taken to ascertain whether or no there was any syphilitic taint. The return obtained from the investigation of the family histories of these women may be taken as a fair average return of family history for the poorest section of the London community.

The comparison of Tables I and II can best be made by means of the familiar device of parallel columns; the