babies, one cervical polyp, recently removed — six in all. In the two columns together, are three cases of syphilis, five of recent hæmorrhage, and four of nursing young babies.

Can these conditions be considered as influencing in any way the color of the vagina? The blueness is due to hypertrophy of the venous plexuses of the vagina, and is not a pigmentation. It seems reasonable to infer that whatever affects the blood-supply of the vagina, or changes the character of its mucous membrane, might have a marked influence on the color of these bloodvessels, as seen through the vaginal mucous membrane. A uterine hæmorrhage, polyp, or threatened miscarriage might cause a decided change in the amount of blood in the pelvic bloodvessels. I have certainly seen a well-marked blue color disappear after a threatened miscarriage, where there was considerable hæmorrhage, to reappear later. For the same reason, we should not expect the color in cases of bleeding fibroid in an unimpregnated uterus, and, in case of pregnancy, might not the color appear later than usual?

In regard to syphilis, it is so common a disease that I do not know whether it has any causative effect in this instance or not. It certainly modifies the color of all eruptions on skin or mucous membrane, and it may have had a similar effect in my cases.

Eczema existed in four cases, and I think it very conceivable that the eczematous color should so predominate as to mask the blue color. In the same way, a gonorrhœa or vaginitis might obscure the color.

Whether retroversion has any effect, I do not feel that I can draw any conclusion from four cases. The circulation in a displaced uterus is certainly disturbed, but whether this extends to the veins of the vagina I have never seen stated.

In regard to those who nursed young babes, I do not think it is of importance, for I have seen the blue color well marked in a number of such cases.

The conditions in the other cases noted I shall not have anything further to say about.

Now the question arises: does a marked or so-called characteristic blue color exist where there is no pregnancy, and how often? I have notes of three cases where the color was almost characteristic, and one where I deemed it *quite* so. The first had a blue color universally distributed over the introitus. The second had a blue tinge near the urethra. This was a case of fistula in ano. The next had a blue sheen over the whole introitus, and the last case showed a marked blue color on and at the side of the urethra. This patient had a long, hard cervix, and suffered from dysmenorrhœa. I dilated her cervix a month ago, with great relief to the menstrual pain. I saw her yesterday, and found that the blue color had extended up the urethra and anterior vaginal wall. The uterus was perceptibly enlarged, and she has had some nausea in the morning. Menstruation is expected in a day or two, and possibly she is pregnant. I shall watch for the blue color with interest.²

These notes are taken from the records of about two thousand gynæcological cases, and when we compare the table of cases of pregnancy with the facts as I have stated them in regard to the non-pregnant cases,

² I have seen this patient since the above was written. She menstruated without pain three days after I saw her before. The blue is not quite as marked as it was just before menstruation.

to my mind it leaves no doubt of the value of this diagnostic sign. Among these cases, there have been, of course, fibroids, ovarian tumors, large ovaries, uterine displacements of all kinds; in fact, the cases that are usually found among so large a number of cases, but in only the four which I have detailed was the color in the least characteristic.

I have also had occasion to notice its absence in many cases of women who supposed themselves pregnant, but who were not so. Where I have used the word blue or markedly blue in this paper, wine-color or violet, would, in some cases, be more appropriate. I have examined for it with the patient on her back, and with my fingers I have separated the folds of vagina, so as to get a good view, particularly of the anterior wall of the vagina, and in some cases I have used the speculum. In private practice, and under many circumstances, it is a mode of observation that cannot be undertaken. My attention was first particularly directed to this point by Dr. J. R. Chadwick, seven years ago. I have endeavored, in my gynæcological clinic, to see if my cases threw any light on the subject.

SUPPLEMENTARY OVARIES.¹

BY JOHN HOMANS, 2d, M.D.

THE short paper which I am about to read this evening does not contain much original work or present any very startling matter for your consideration, but it is written to call the attention of the section to a few facts which it seems have not received the consideration that they merit.

These facts may seem rather small and insignificant, but my excuse for presenting them to you is, that attention to minuteness and carefulness of detail is thought of more and more importance as medical science advances.

In the Richmond and Louisville *Medical Journal* for 1875, Dr. Goodman collected and published 27 cases of double ovariectomy by various native and foreign operators, in 10 of which the operation had no influence whatsoever on menstruation; in one the flow was increased and in one the function was irregularly performed.

Nearly forty per cent., therefore, of these cases, were not much affected by the removal of both ovaries. Since the publication of this paper, however, this high proportion of non-affected cases has not been maintained. As there have been 117 other cases collected, of which only 8 still menstruated after the operation, this makes a total of 144 accessible cases of double ovariectomy, of which 18 or nearly twelve per cent. were uninfluenced by the operation. The explanation of this apparent anomaly, may, I think, be found in the fact that many of these patients had supplementary ovaries.

Winkels' work on the "Pathology of the Female Sexual organs," gives a good figure, but no description of a supplementary ovary, and Waldeyer in his classical work on the "*Eierstock u. Ei*," refers, it is true, to small bodies occurring in the neighborhood of the ovary, which he calls "supra-ovarian bodies," but Dr. Hermann Beigel was the first to give an accurate description of the supplementary ovary in an article in

¹ Read before the Section of Obstetrics and Gynæcology of the Suffolk District Medical Society, March 16, 1887.

the *Wiener Med. Wochens.*, for 1877. In a series of 350 autopsies on persons of all ages, but chiefly adults, Beigel found eight cases of supplementary ovaries. In number they varied from one to three, but as many as six have been noted by another observer. They were either pediculated or were found lying free in the broad ligament. When pediculated they invariably are situated at the line of reflection of the peritonæum. The true ovary really lying more than half outside the peritoneal cavity. The pedicle is a true one, that is, it is composed of a coarse network of connective tissue without any follicular structure, and there is a sharp line of demarkation between the pedicle and the tissue, both of the normal and supplementary ovary. Microscopical examination of the latter shows normal ovarian tissue, in fact, gives a complete likeness in miniature of an ovary. They vary in size from the traditional millet seed up to that of a pea.

The fact that when pediculated they always are found attached to the line of reflection of the peritonæum, offers an explanation for their occurrence. Just at this point, according to the biologists, ciliated epithelium is found in all mammalia, and here also, Waldeyer says, the limits of the germinal epithelium (the Keim-epithel of the German embryologists) are not clearly defined and this epithelium is of variable dimensions. During the development of the ovary a pocket in the irregular outline of the germinal epithelium becomes occluded and is cut off from what might be called the parent organ and thus, the anatomical requirements being all met, becomes the seat of a supplementary ovary.

Now in the majority of the before mentioned cases, in which spaying did not produce the menopause, the menses were only temporarily arrested, gradually returning more or less nearly to the condition existing before operation. These cases it seems to me may be fairly explained by the existence of supplementary ovaries which have slowly enlarged under the benign influence of the reparative forces of nature, and gradually taken on more and more of the functions of the normal organs. It is then, I think, evident that the surgeon who is about to operate for a bleeding fibroid or for the relief of "ovarian neuralgia" or of mental or moral symptoms, cannot be sure that he has extirpated all the primal cause of the distressing or alarming symptoms he is seeking to alleviate, when he has simply removed both ovaries. I do not intend to discuss the advisability of Battey's or Tait's operation, or the relation between ovulation and menstruation, but granting the two premises that, first, the former are proper and justifiable surgical procedures, and second, that the ovaries are active factors in menstruation.

I would in closing call attention to the fact that of the cases operated upon in accordance with these premises, from four to six per cent. cannot be in the least benefited because of a distinct anatomical reason.

ABNORMALITIES, ETC., OF THE OVARY.

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A REPORT OF TEN CASES OF PHTHISIS TREATED WITH GASEOUS ENEMATA.

BY A. GASTON ROETH, M.D., BOSTON.

A VAST field for clinical investigation and research was opened to us when Claude Bernard showed in 1857¹ the action of toxic and medicinal agents when administered per rectum.

When this great teacher demonstrated the fact that hydrogen sulphide, H_2S , could be safely injected into the veins and rectum, afterwards to be eliminated by the lungs, he was followed by Bergeon and Cornil whose practical experiments, covering a number of years, were reported to the French Academy of Medicine in 1886.

The reports of these gentlemen well established the fact that hydrogen sulphide, when carried into the economy by means of carbon dioxide CO_2 , played a most important rôle in its effects upon pulmonary disease of acute and chronic character, and especially under conditions where pulmonary suppuration and co-existing septicæmia were prominent and alarming symptoms.

These latter experiments were but the forerunners of many others calculated to place the treatment of pulmonary diseases, and especially of tubercular phthisis, by the gaseous enemata upon a sound and practical basis. How far they have succeeded I shall endeavor to show from the following ten cases, and as few statistics have as yet been offered the profession, although the system has been in use for some time at the Hospital of the University of Philadelphia, German Hospital and Home for Consumptives, I feel at liberty to give here the result of my observations in such shape that you may formulate your own conclusions.

The cases now under consideration were taken from the Boston Dispensary, where a careful diagnosis was primarily made by Dr. John Dixwell, their local lesions well defined, each patient carefully weighed and his general condition recorded. Their sputa were stained and examined, the number of bacilli found classified in accordance with Gaffky's scale, now accepted by bacteriologists as a standard of measurement for this bacillus. The same ground was gone over at the end of one month's treatment. I desire here to express my grateful thanks to Dr. E. W. Cushing, whose kindness in re-examining the specimens of sputa, both at the beginning and end of the treatment, leaves no shadow of doubt as to the correctness of each particular case classified.

It will be noticed that in spite of the bad hygienic surroundings in which these patients lived, every one apparently without exception destitute, yet, notwithstanding the unfavorable atmospheric conditions, the prevailing winds, easterly and cold, and all orthodox advice and medication having been suspended, and a steady and perceptible amelioration has been ob-

¹ Leçons sur les substances toxiques et médicamenteuses.