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Semen Examination

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At the 1985 Catholic Physicians' Guilds meeting in Honolulu, there were agonizing echoes of a theme which has been a recurring one for many years, namely, the problem of investigation of the male in sterility cases. There were the unspoken implications of envy of our less enlightened colleagues who have no qualms about masturbation and a feeling that our own service to patients is somehow second rate. There was reference to the familiar, undignified and pointless use of the perforated condom.

It is not difficult to find "dissenting" theologians (Rev. Bernard Häring[1] is one such), who will recommend the masturbation specimen. "The Vatican Declaration on Sexual Ethics" (1975) confirmed the unchanging principle that this procedure is illicit in all circumstances.

The point I want to make here is that, after all the doubts, the tortured consciences and the compliance with the masturbation recommendation, the whole procedure is both unnecessary and useless as far as the patient is concerned.

The reason for this is that, in the present state of knowledge (or ignorance), the whole thrust of fertility work, especially in the male, is diagnostic and not therapeutic. That is, if there is a failure of spermatogenesis, whether relative or absolute, there is nothing we can do to improve matters. Of course, if there is a vas obstruction for whatever reason, it may be cured by an anastomosis. Some believe that temporary depression of spermatogenesis may be remedied by discontinuing alcohol or drugs, but this is difficult to prove. The same applies to operations for varicocele or changing underwear to reduce scrotal heat. Neither of these is justified on available evidence.

Claims for improvement of semen status are usually based on sperm counts but such evidence is unconvincing because of two factors — the difficulty in deciding what is a "normal" count, and the wide diurnal fluctuations in the count. In Sydney, Australia, I heard of one subject who masturbated every day for a month. This may be considered by some as a

devotion to science beyond the call of duty, but the essential fact which emerged was the wildly varying counts on successive days.

Therefore, any claims for the value of certain treatments have no validity if based on sperm counts alone. The only proof of benefit must rest on improved pregnancy rates—and that itself is very difficult to prove.

We are able to correct female infertility if there is tubal blockage or failure of ovulation, but for the male we should have the courage and honesty to state that there is no treatment for defects of spermatogenesis.

Sort Out Couples

The only purpose of seminal analysis is therefore to sort out couples into those with apparently normal fertility (counts above 20 mil. per ml.—but some seminologists now state that even 5 mil. per ml. may be satisfactory); those with lowered fertility (under 5 mil. per ml.); and those with no fertility (azoospermia). Those in the first two categories should be advised to wait patiently for pregnancy. Those in the latter should proceed to adoption without delay.

As a precaution, however, the prudent physician will never state categorically that there is *no* prospect of pregnancy. Surprises sometimes turn up to humble us all.

How best to make the seminal assessment? The Sims (or Huhner) test has been useful for 100 years. (Marion Sims died in New York in 1883.) Finding motile sperms in the cervical mucus confirms two facts: penetration, and at least some fertility.

For several years I have abandoned the Sims test in favor of a more tidy and easy examination which should appeal to the lazy gynecologist who may find it irksome to co-ordinate his microscope examinations with the marital activities of his patients. This is the use of the postcoital urethral residue of semen. It has the advantage of being undiluted by cervical mucus; and the spermatozoa are not immobilized by vaginal secretions. Some object that the sperm density is greater in the first part of the ejaculate than in the last part, but this is a matter of no importance and moreover, it implies a precision in sperm counts which is quite unrealistic. Another advantage is that the onus for the examination is placed on the laboratory rather than on the physician and the timing of intercourse is not so restricted.

I first reported this procedure in 1959.[2] It was later included in a standard American pathology textbook.[3] I discussed the matter more fully in my book[4] on marriage and sexuality.

Procedure:

The wife is given a glass microscope slide and delicate coverglass to take home. The couple have intercourse during office hours and at the end of the normal act the husband drops onto the slide a small amount of the *effluvium seminis* that drains from the urethra. This is then covered with the coverglass and it will remain moist for about three hours.

In the laboratory:

The technician reports on 1. Density (the number of spermatozoa per high power field). A count of 100 per HPF is equivalent to about 100 mil. per ml.; 10 per HPF to 10 mil. and so on. 2. Morphology. 3. Motility. It is easy to see, therefore, how the semen can be accurately graded into high, moderate (or low), and zero counts.

How does this compare with the conventional masturbation specimen reports? These latter are fuller because they include more factors: 1. Density in millions per ml. (but this is just the same information in other terms). 2. Morphology (the incidence of abnormal forms—the same in each method). 3. Motility (the percentage of moving sperms, and the quality of their movement—the same in each). 4. pH. 5. Viscosity. 6. Liquefaction. 7. Volume of ejaculate. 8. Penetration capacity of the sperms into cervical mucus or hamster ova.

While all of these observations are interesting, how do any of them benefit the sterile couple? If the density is too low, if the motility is not vigorous enough, if the volume of ejaculate is too small, if the abnormal forms are too frequent, if the penetration seems inadequate, if the pH, viscosity or liquefaction does not measure up to some arbitrary standards, we are still left with the final practical question—so what?

None of these factors can be influenced by "treatment". To prescribe a few milligrams of estrogen or progesterone in the pious hope that something beneficial will happen is just a pragmatic gesture. Indeed, it may well make things worse by interfering with ovulation. The couple soon realizes that the whole sorry exercise has been simply a diagnostic investigation and at the end of it they are no nearer their desired conception.

The modern dissenting theologians who approve of masturbation in sterility work (and in other circumstances as well) do not realize how the hundreds of decent husbands who are coerced by wifely and medical pressure loathe and detest the procedure. They probably do not understand that the laboratories provide a special masturbation room furnished with *Playboy* and *Penthouse* to stimulate the unwilling males. Is this the authentic Christian picture of purity and refinement? Why do theologians accept uncritically what the medical profession, with its current collapse of ethical standards, tells them in its journals? If they were genuine intellectuals they would have asked themselves: is there another way? If diagnoses in other diseases can be made on minute specimens, say a single drop of blood, or a few cells in Pap smears, or 0.5 ml. of cerebrospinal fluid, why do the laboratories demand the whole ejaculate? Why indeed? *Cui bono?* You may well ask.

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