delivery. While only of remote value in obstetric diagnosis, radiography is desirable in all cases in which any deviation from the usual is suspected. If a foetal monster is then detected the pregnancy should be terminated by induction of labour, or by caesarean section if the condition is not recognized until labour is in progress and the monster is large.

I am indebted to Professor B. H. Sheares for permission to report this case. My thanks are due to Mrs. Patterson, radiographer, Kandang Kerbau Hospital, and Dr. Lim Kee Loo, radiologist, General Hospital, Singapore, for their co-operation in the radiological work involved; to Mr. Austin Bennett for the photography; and to Miss Rita Rodrigues for the clerical work.

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SILICONE BARRIER CREAM IN PREVENTION OF BEDSORES

BY

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The prevention of bedsores in bedridden patients is a problem which demands more time and attention from hospital nursing staff than perhaps any other treatment. In hospitals for chronic cases and geriatric units, where some of the patients are permanently confined to bed, and in addition are often incontinent of urine and faeces, the duty hours of one nurse may be spent entirely in carrying out a succession of "back rounds."

Prevention is usually along established lines, which include the washing of pressure areas with soap and water, drying, and rubbing with spirit to harden the skin, dusting with powder to absorb surplus moisture, and frequent changes of position.

In this geriatric hospital the above routine has been carried out five times daily on every bedridden patient. It was observed that patients who had been long bedridden at home were admitted with pressure areas in fairly good condition. However, after a short time in hospital, sometimes as little as a few days, they developed bedsores. This was attributed to: (1) washing the back with soap and water, inadequate drying; and rubbing the back with spirit; and (2) an increase in disorientation and incontinence, which often follows a change of environment in the elderly.

It was thought that the devitalized atrophic skin of the aged suffered damage from rubbing with spirit, and the powder used tended to cake in skin creases, thus causing irritation.

A further cause was probably the heavy sedation at one time imposed on first admission, when previously quiet patients became restless and unmanageable owing to the change of environment. This factor has been lessened by the use of chlorpromazine, which has been found to make many cases of senile confusion manageable without rendering them unconscious. The main causes of bedsores are pressure, rubbing, and maceration with urine and other body fluids.

Method

Frequent washing with soap and water and rubbing with spirit were therefore discontinued, and the following regime was instituted six months ago, and has been in routine use at this hospital since. (1) The position of the patient is changed at least five times daily. (2) The skin is washed with soap and water as infrequently as possible. Pressure areas are washed only twice a week, or whenever they become fouled, when they are washed with warm water alone and carefully dried. This washing does not remove the silicone barrier-cream that has been applied. (3) Silicone vasogen ("lactagol") is smeared thinly and evenly on pressure areas twice daily for a week, then once daily. (4) All patients are prescribed tolazoline 25 mg. t.d.s. and vitamin C 50 mg. t.d.s.

Tolazoline was first introduced in an attempt to improve the skin blood supply generally. It was discontinued for a period of six weeks, and in that time two new bedsores developed.

Established bedsores are treated on orthodox lines, but silicone vasogen is applied to the surrounding whole skin.

The condition of the pressure areas of each patient is noted on a special chart on admission, and re-examined weekly. The classifications used are as follows: reddening of skin, gangrene of skin, loss of skin, and destruction of deeper layers. In each case the area involved is traced on thin paper.

Silicone vasogen, which consists of 20% polydimethylsiloxane in a water-soluble base, has been found to be the most pleasant and economical in use. "Siopel" is slightly less expensive, but contains only 10% of silicone compound.

Silicone vasogen is also used routinely to protect the skin surrounding suprapubic cystostomies, and to protect preputial skin in cases of prostatic dribbling.

Impressions of Pilot Survey

Since the introduction of this routine the incidence of fresh bedsores has been lower than before. This statement is based on personal observation and on reports from the nursing staff. No case of skin sensitization or conjunctivitis in patients or in nurses has been observed since the use of silicone vasogen was begun.

However, the greatest advantage is in the saving of time, and the nursing staff is enthusiastic about this. There are 120 beds in this institution, and on an average 40 are occupied by completely bedridden patients. When the old method of prevention was used, employing rubbing with spirit, 25 minutes a day was spent on each patient. With silicone vasogen, and changing the patient's position in bed five times daily, it is estimated that 15 minutes a day is spent on each patient. This results in a saving of 10 minutes a day for each patient, or, in the case of this hospital, 400 minutes (6 hours 40 minutes). This is tantamount to increasing the hospital's nursing staff by one nurse.

In the Colchester Hospital Group there are 350 beds for chronic cases. The incidence of bedridden patients is about 33.3%. The employment of this method throughout the group would save 20 hours' nursing time every day. In view of the difficulties of obtaining nursing staff in chronic and geriatric units, it is felt that this economy of labour justifies the employment of the method even if it can be shown to be no better than the orthodox system.

Cost.—At this hospital one 500-g. container of silicone vasogen is used each week at a cost of 35s. Tolazoline B.P. costs 58s. for 100 25-mg. tablets, and vitamins are in any case given as a routine to elderly patients. The weekly cost per patient is thus 10½d. for silicone vasogen and 1s. 2½d. for tolazoline.

Summary

A new method of preventing bedsores is described, using a silicone barrier-cream in place of the usual method of rubbing with spirit.

Observations over a period of six months show that it is at least as effective as the usual method. The saving in nursing time and labour justifies its continued use. The cost of treatment is low.

Further trials are in progress.

My thanks are due to Dr. A. B. Pollard for permission to conduct this survey on patients in his beds, and for advice and criticism; and to Miss F. Goodall, S.R.N., S.C.M., who has supervised the treatment since its introduction.

HAZARDS OF THE MENSTRUAL CYCLE

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The luteal phase of the menstrual cycle occupies on an average the 14 days preceding menstrual bleeding and is conventionally attributed to changes in the character and activity of the gonadotrophic and ovarian hormones which follow ovulation. Certainly these changes could account for most of the luteal appearances in the reproductive system, but they do not explain the great variety of disorders (Geiringer, 1951), the emotional instability (Stieglitz and Kimble, 1949; Morton, 1950), and the commission of violent crimes (Cooke, 1945) which are hazards of the luteum. Nor do they explain the acceleration in heart rate (MacKinnon, 1954a), the neutrophilia (MacKinnon, 1953), the lymphocytopenia (MacKinnon, 1953), the eosinopenia (Döring and Feustel, 1954), and the suppression of digital sweating (MacKinnon, 1954b) which occur at that time. These features are, however, all explicable in terms of altered suprarenal cortical activity.

Present Investigation

In order to obtain direct evidence of this activity suprarenal glands and uteri were collected from women of reproductive age with a view to comparing, anatomically and histochemically, the cortices of those dying in the follicular phase with those dying in the luteal phase of the cycle. In two and a half years specimens from 47 successive post-mortem examinations—accident, suicide, and disease (see Table)—were collected from a London mortuary dealing

Cause of Death in 47 Women of Reproductive Age

Suicide	Accident	Disease
14 carbon monoxide	5 fractured skull	3 pulmonary embolism
6 barbiturate	2 carbon monoxide	2 coronary thrombosis
1 cyanide	1 electrocution	2 peritonitis
1 aspirin		2 chronic heart
1 hanging		2 subarachnoid haem.
		1 pur bronchitis
		1 chronic anaemia
		1 angioneurotic oedema
		1 status epilepticus

with coroners' cases. The time of death in relation to the menstrual cycle was determined by means of endometrial histology, by which deaths were allocated to the follicular phase or to the early, middle, or late stages of the luteal phase, the duration of the luteal subdivisions being two, seven, and five days respectively (Lloyd, 1951). It was found (see Chart) that only two deaths had taken place in the follicular phase and that the total number of deaths, and also

the deaths from suicide, accident, and disease separately, were more numerous in the middle than in the combined early and late parts of the luteum.

Glands obtained from cases of death from disease were not regarded as eligible for comparison. Of the cases of suicide and accident (see Table) only one, a case of carbon monoxide poisoning, was found to have occurred in the follicular phase (see Chart). Its cortex was slightly smaller

Distribution of 47 deaths in the menstrual cycle.

and appeared to be less active in Sudan IV and digitonin sections than the average luteal cortex, but the comparison is in no way significant, and at the present rate of collection some years may elapse before a significant one can be made.

However, the accompanying chart provides such clear evidence that suicides, fatal accidents, and deaths from disease are commoner in the luteal than in the follicular phase of the menstrual cycle that it seemed desirable to publish the facts so far found, to draw the attention of practitioners to the hazards of the cycle. For it would seem reasonable to suggest that highly strung women and those suffering from chronic disease should be warned of the hazards and advised to take more care and rest, and that planned operations, especially of the major variety—for example, valvotomy—should be carried out in the follicular phase of the cycle.

It is a pleasure to acknowledge the co-operation we have had, and continue to have, from Dr. Francis Camps.

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There are more than 5,000 alien physicians from 83 different countries now in training in the United States, of whom about 1 in every 8 is a woman, and they constitute "up to one-fourth of the total of resident staffs on duty in the hospitals of this country," writes Dr. CARL BEARSE, of the New England Hospital, Boston, in a recent guest editorial in the *Journal of the American Medical Association* (February 18, p. 562). Dr. Bearse stresses the importance of the visiting foreign doctor, with his wide contacts among patients in his own country, as a potential promoter of international friendship. At the New England Hospital foreign doctors are given a month's course of "indoctrination and orientation" before their medical training begins.