READING COMPREHENSION

TEXT 1.

The evolution of the Marie Stopes electrocautery no-scalpel vasectomy procedure

Introduction

Vasectomy has been free on the National Health Service since 1972 and provision has been supplemented by private practitioners and charitable organisations. According to Hospital Episode Statistics there were 48203 female and 35609 male sterilisation procedures performed in the NHS in 1998/1999. In some age groups there are more men who have been sterilised than women. In 1998, 19% of men in the 45-49 years of age group had been sterilised compared to 15 % of women, although women were more likely to have had another operation which rendered them sterile. Britain is one of only four countries, together with Bhutan, New Zealand and The Netherlands, with more sterilised men than women.

Launch of the Marie Stopes programme

Dr Marie Stopes opened Britain's first family planning clinic in 1921. Four years later she established the world's first full private family planning centre in Whitfield Street, London, UK, which has been offering services continuously for the last 76 years.

Following the death of Dr Stopes in 1958, vasectomy was added to the contraceptive menu following a successful campaign to promote this procedure by the Simon Population Trust in 1966. In 1976, when the centre came under the new management, the service philosophy was changed from a patient to a customer orientation and vasectomy was actively marketed. A national, small, space advertising campaign using the theme 'a safe, simple, 5-minute, stop babies operation, available without fuss or waiting lists', was launched in male readership magazines and local press. Operating days were changed to Fridays and Saturdays in line with client preference. A comprehensive pre-tested 'Print Counselling' pack for mailing to enquirers was developed. The pre-operative doctor's examination was discontinued in favour of 'same-day' counselling using trained lay counsellors. The mandatory partner's consent was made optional. The traditional surgeon's cap and mask were discarded and the operating environment made less surgical and intimidating.

Responses to the advertising campaign highlighted many areas of 'unmet need', prompting the launch in 1978 of the first of the nationwide network of Marie Stopes satellite vasectomy centres. Interested general practitioners (GPs) with suitable premises were recruited, trained and equipped. A central call centre was established to handle client contacts. Apart from attendance for same-day counselling and operation all customer contacts were by phone and post- including post-operative sperm tests returned at 12 and 14 weeks. The client-centred programme was, and still is, essentially a 'mail order' vasectomy service. By the mid-1980s there were 18 Stopes vasectomy centres and in 2000 some 25 centres throughout England and Wales.

Evolution of the Marie Stopes procedure

The vasectomy technique practised by the doctors at the Marie Stopes centre from the mid-1960s to 1978 was the conventional local anaesthetic, two-incision 'cut and tie' ligature procedure.

In June 1978, Stanwood Schmidt described the lower complication and failure rates associated with reliance on electrocoagulation and reliant on subsequent fibrosis to occlude the vasa. A model 732 Birtcher Hyfrecator was purchased and the technique adopted. Under local anaesthesia the exposed vasa were divided and 5 mm of the urethral and 5mm on the testicular sides coagulated. The sheath of the vas was then interposed between the vas ends and the skin sutured.

Initial experience confirmed Schmidt's reported reduced incidence of wound infection, haematomas, and lower incidence of sperm granulomas and congestive epididymitis. However, a nil failure rate was never achieved. By 1979, over 400 vasectomies a month were being performed and a number of small innovations aimed at simplifying the procedure were tested and introduced. Pre-operation shaving of the scrotum was dropped, and a small, single, vertical, scrotal incision adopted for which skin sutures were unnecessary. The technique of occluding the vasa was also modified. Vasectomy forceps comparable to a single-toothed Allis forceps were imported for mobilising and teasing out a loop of vas.

Following the adoption of more extensive coagulation, fascial interposition, the value of which had been questioned, was successfully discontinued. Trials of an incisionless percutaneous electrocoagulation technique proved to be popular with clients but had an unacceptable re-operation rate.

Adapted from: http://jfprhc.bmj.com/content/familyplanning/28/3/137.full.pdf

TASK 1. Decide if these statements are true, false or whether these issues have not been mentioned in the recording. Circle T for "true", F for "false", and NG for "not given".

1. Donations have never been made to provide for the need of vasectomy clinics.	**T / F / NG**
2. In most countries the number of female sterilisations is bigger than that of male ones.	**T / F / NG**
3. Before Dr Stopes died in 1958, various methods of contraception had been known in the UK.	**T / F / NG**
4. In 1970s vasectomy was turned into a market product.	**T / F / NG**
5. People who were interested in the procedure were sent special information brochures.	**T / F / NG**
6. The people who gave pre-operative advice were all medical professionals.	**T / F / NG**
7. Since 1976, the surgeons were obliged to wear a full surgical gown during each vasectomy procedure.	**T / F / NG**
8. After 1976, patients' husbands or wives had to agree for the procedure.	**T / F / NG**
9. The doctor who observed some benefits of electrocoagulation was a urologist.	**T / F / NG**
10. The coagulation was performed on male both urinary and reproductive organs.	**T / F / NG**
11. The size of vasectomy forceps was changed over the years.	**T / F / NG**
12. Extensive coagulation replaced fascial interposition.	**T / F / NG**
13. The technique which did not involve cuts was better liked by specialists.	**T / F / NG**

TEXT 2

Drinking Red Wine Before Smoking Can Prevent Short Term Vascular Damage

1)…… A new report in The American Journal of Medicine found that a glass or two of red wine before lighting up a cigarette can counteract some of the short-term negative effects of smoking on blood vessels.

(2)…… . Red wine stimulates the formation of endothelium-dependent relaxation factors such as nitric oxide, which improve endothelial function in coronary arteries possibly because of the high phenol concentration in red wine.

"However, sparse data exist on the short term potential vasoprotective effects of red wine in smoking-healthy individuals," explained lead investigator Viktoria Schwarz, MD, of the University of Saarland, Homburg, Germany. "The aim of our study was to investigate the acute vascular effects of red wine consumption prior to 'occasional lifestyle smoking' in healthy individuals. (3)……."

The study examined the effects of smoking on various biochemical processes in the blood and vessels of 20 healthy non-smokers who volunteered to smoke three cigarettes. (4)…….. . Blood and urine were collected before and after drinking and smoking and continued until 18 hours after smoking.

Smoking is known to cause microparticles to be released into the bloodstream. (5)…….. Researchers found that in subjects who consumed red wine before smoking, these cellular changes did not occur.

Another biochemical process affected by smoking is telomerase activity. Telomeres can be thought of as "protective caps" on chromosomes. (6)…….. . By measuring telomerase activity, investigators determined that the group that smoked without drinking red wine showed a 56% decrease in telomerase activity while the drinking group showed only a 20% decrease.

Inflammation puts stress on cells due to an imbalance in reactive oxygen species production and the body's antioxidant defenses. According to Dr. Schwarz, "We observed acute proinflammatory changes, namely, leukocytosis, neutrophilia, upregulated levels of IL-6 in serum, and enhanced messenger RNA expression of IL-6 and tumor necrosis factor alpha. (7)…… ."

Since the study was limited to young, healthy nonsmokers, it is not clear whether these findings apply to the elderly, the ill, or chronic smokers. There was no comparison to different alcoholic and non-alcoholic beverages or whether the results would apply to more than just occasional smokers and drinkers.

These findings underscore the magnitude of acute damage exerted by cigarette smoking in "occasional lifestyle smokers" and demonstrate the potential of red wine as a protective strategy to avert markers of vascular injury. (8)…… . "Nevertheless, this study identified mechanisms suitable to explore damage and protection on the vasculature in humans, paving the way for future clinical studies."

Adapted from: The American Journal of Medicine http://www.amjmed.com

TASK 2. Circle the correct alternative (A, B, or C). There is only one option possible.

1. According to the report, drinking some red wine prior to smoking can
    a) hinder the influence of smoking on arteries, veins etc.;
    b) diminish most adverse effects of smoking;
    c) stimulate the formation of nitric oxide.

2. The data on the possible beneficial effects of red wine on the blood vessels in healthy smokers is
    a) sufficient;
    b) inadequate;
    c) unscientific.

3. The results of the research apply to
    a) people who smoke occasionally;
    b) people who used to smoke;
    c) people who do not smoke.

4. It was found that in subjects who consumed red wine before smoking
    a) telomerase activity escalated;
    b) the decline in telomerase activity was lower;
    c) there was no change in telomerase activity.

TASK 3. Eight sentences have been removed from the text. Decide which sentence (A-I) best fits each gap (1-8). There is one extra sentence which you do not need to use.

A. We found evidence that pre-consumption of red wine prevented most of the vascular injury caused by smoking.

B. Cigarette smoke causes acute endothelial damage, vascular and systemic inflammation, and cellular aging.

C. Our study adds to the present evidence that the proinflammatory effects in nonsmokers with ‘occasional lifestyle smoking’ could be prevented by red wine consumption.

D. Dr. Schwarz is aware that the study will not help to treat or prevent cardiovascular disorders.

E. Half of the subjects drank red wine one hour before smoking, in an amount calculated to result in 0.075% blood alcohol content.

F. During aging, these caps can shorten and lose their protective ability.

G. Dr. Schwarz and co-investigators emphasized that they do not intend to motivate occasional smokers to drink or occasional drinkers to smoke.

H. These particles come from endothelial cells, platelets, and monocytes and indicate that cells in the blood vessels are being damaged.

I. Drinking red wine is widely regarded as protective against cardiovascular disease.