

The effect of antifungal creams and pessaries on latex

Margaret J. Sparrow, Sexual Health Physician, Wellington Sexual Health Service and Medical Training Officer, New Zealand Family Planning Association, Wellington, New Zealand

Index words: adverse effects, contraception.

(*Aust Prescr* 2000;23:129)

Introduction

One of the cornerstones of safer sex programs is correct condom use to prevent both unplanned pregnancies and the spread of sexually transmissible infections, including HIV/AIDS. However, many people are unaware that commonly used products may have an adverse effect on the protective properties of barrier contraceptives made of latex.

The products most likely to come into contact with condoms or diaphragms are personal lubricants, spermicidal preparations, personal hygiene products, hormonal preparations, acidifying agents, and preparations used for the treatment of the common vaginal infections, especially candida. It is possible of course, that any dermatological product used on the genital area in both sexes, may have an effect on latex rubber.

Research

The London International Group, a major manufacturer of condoms, reported the deleterious effects of mineral and vegetable oils on condoms in 1988.¹ The company tested all the leading brands of condoms and found that baby oil, petroleum jelly and corn oil all caused major reductions in tensile strength, elongation at break, burst pressure and burst volume. Water based lubricants did not adversely affect the physical properties of condoms.

Mineral oil products can damage latex rubber condoms within 60 seconds, causing defects which may allow the passage of sperm or micro-organisms.² There is no deterioration with glycerol, a frequent component of hand lotions and personal lubricants or with aqueous nonoxynol-9, the most commonly used spermicide.

Although more than 10 years has passed since this information was published, harmful products are still available without sufficient warnings for the health professionals who may prescribe them or for the consumers who may use them. Current formulations of antifungal drugs can damage latex. The imidazole antifungals themselves are not thought to be incompatible with latex, but the various mineral and vegetable oils which are used as excipients in the pessary or cream may damage latex. These warnings do not apply to polyurethane condoms.

There has been very little independent research on the topic^{3,4,5}, but the New Zealand Ministry of Health has published a report on the interaction with latex.⁶

Conclusion

Under international standards for condoms, the packaging or leaflet must advise consumers to avoid the use of oil-based lubricants and to consult a doctor or pharmacist about the compatibility of topical medicines applied in the genital area. However, this advice is meaningless unless such information is available. Unless the manufacturers have tested the compatibility of their products, it should be assumed that topical antifungal medications can damage the latex in barrier contraceptives.

REFERENCES

1. White N, Taylor K, Lyszkowski A, Tullett J, Morris C. Dangers of lubricants used with condoms [letter]. *Nature* 1988;335:19.
2. Voeller B, Coulson AH, Bernstein GS, Nakamura RM. Mineral oil lubricants cause rapid deterioration of latex condoms. *Contraception* 1989;39:95-102.
3. Walters CJ, Tucker IG. Effect of vaginal antifungals on tensile strength of condoms. *New Zealand Pharmacy* 1994 Aug;28:30.
4. Bernstein GS, Campeau JD, Nakamura RM. Effect of vaginal therapeutic products on physical properties of latex condoms. *J Obstet Gynaecol* 1994;14 Suppl 2:S139-40.
5. Travers P, Adhikari P, Boswell B. The effects of excipients in Nilstat vaginal antifungals on the tensile properties of latex rubber. *TGALaboratory Information Bulletin* 1996;7:27-32.
6. Ministry of Health. Summary of latex condoms & their possible interaction with medicines applied to the genital area. Wellington: Ministry of Health; 2000.

E-mail: sexualhealth@email.com

Therapeutic Guidelines: Antibiotic Version 11, 2000

The new version of Therapeutic Guidelines: Antibiotic has just been published.

It includes information covering more than 300 common infections, arranged in clearly titled chapters and sections. Recommendations for antimicrobial therapy – the main feature of the text – are outlined in chapters covering infections of the various systems. These include the respiratory tract, urinary tract, skin, genital tract, eyes, central nervous system, cardiovascular system and gastrointestinal tract.

For information about Antibiotic or any other Guidelines title, contact Therapeutic Guidelines Ltd., freecall 1800 061 260, e-mail sales@tg.com.au or visit the web site at www.tg.com.au All Therapeutic Guidelines titles are available electronically.