

遺伝子発現の変化を比較し、血清存在下での増殖に関与するさらなる遺伝子の特定を行った。

【結果・考察】 親株において血清添加による発現量の増加が確認された遺伝子 543 個のうち、遺伝子破壊株において発現量の増加が観察されなかった 111 個の遺伝子について、遺伝子破壊株の表現型解析を行い、血清存在下での増殖に関与すると予想される遺伝子を 3 個特定した。特定した 3 遺伝子それぞれの破壊株を用いて、マウス感染実験を行った結果、全ての破壊株感染マウス群において、親株感染マウス群と比べて、顕著な生存率の上昇が確認された。以上より、特定した 3 つの遺伝子が血清存在下での菌糸生育を可能にし、感染宿主における増殖機構に関与することが示唆された。今後、これまでに特定した血清存在下の生育に必須な因子間の相互関係を明らかにし、血清存在下の増殖機構の解明を目指す。

2-6.

Treatment of intra-anal warts with imiquimod 5% cream : a single center prospective open study

(皮膚科学分野)

○入澤 亮吉、坪井 良治、齋藤万寿吉
原田 和俊

【Objectives】 Intra-anal warts are frequently recalcitrant to surgical removal, but imiquimod 5% cream is not formulated to use in medical care practice due to the risk of mucosal inflammation. In the present, single center, prospective, open study, we examined the safety and efficacy of application of imiquimod 5% cream for intra-anal warts.

【Methods】 Imiquimod 5% cream was applied to the entire inner surface of the anal canal with a cotton swab under anoscopy three times weekly for 16 weeks. If complete remission was not achieved, the treatment was continued until week 28. Electrocautery was applied once in a poorly responsive case.

【Results】 21 patients with intra-anal warts, of whom 16 were HIV-positive, were enrolled. Two patients withdrew before week 16, and nine more patients withdrew before week 28. The complete clearance rate was 36.8% (7/19) at week 16, and 70% (7/10) at week 28. Four patients achieved complete clearance at week

16 maintained clearance at week 28 without further treatment. Three out of 4 patients resistant to previous electrocautery achieved clearance with imiquimod 5% cream treatment. Adverse events occurred in 81% (17/21) of the patients mainly at the application site, but serious or previously unencountered adverse events were not observed.

【Conclusion】 Imiquimod 5% cream applied to intra-anal warts was nearly as efficacious and safe as when applied to external anogenital warts. Since treatment modalities for intra-anal warts are very limited, application of imiquimod 5% cream alone with careful and frequent observation or in combination with electrocautery is a useful option for refractory cases of intra-anal wart.

3-①-1.

Preliminary Findings on Control of Dispersion of Aerosols and Droplets During Bronchoscopy Using a newly developed oxygen Mask (Universal use of closed face oxygen masks for protect against developing COVID-19)

(社会人大学院博士課程 3年呼吸器・甲状腺外科)

○田中 裕紀

(呼吸器・甲状腺外科)

濱中和嘉子、垣花 昌俊、河口 洋平
山田 祐揮、嶋田 善久、前原 幸夫
萩原 優、大平 達夫、池田 徳彦

Background: Considering the global spread of COVID-19 infection, routinely performed aerosol generating procedures such as bronchoscopy have been associated with infection of health-care workers. New strategy for the safe bronchoscopic examination should be created. This is the initial report of a study using computational fluid dynamic simulation to evaluate the newly modified oxygen mask during bronchoscopy.

Methods: The effectiveness of the modified oxygen mask was investigated by visualizing droplets and aerosols. And we quantified and compared droplets and aerosols with and without the newly mask. The airborne droplets counting was performed at two points, 60 cm and 30 cm from the mouth, assuming the distance