

Studying Risk Factor for Dermatofitosis, Natanael Earns Doctorate

Tuesday, 02 February 2016 WIB, By: Marwati

Dermatofitosis is a superficialis mycosis often found in tropical countries like Indonesia. In Samarinda, East Kalimantan, dermatomycosis ranks second of top ten skin and venereal diseases, also the highest case of infection in rural and urban areas, affecting coal mining workers, drivers, students and other people. The clinical type of dermatofitosis that is most common is the tinea kruris that usually affects males, the main cause is *Trichophyton rubrum*.

“The *T. rubrum* infection is a chronic infection, relapsing, and difficult to cure,” said dr. Natanael Shem, Dip Derm, DDSc, MSc.Derm., during his open doctoral examination at Universitas Gadjah Mada’s Faculty of Medicine on Saturday (30/1). In his opinion, this condition may affect people’s quality of life, limiting their chance to make income, as well as creating economic problem due to treatment costs. The disease is also communicable.

Researches done previously on the risk factors of the disease showed varied results. Some relate the chronic infection of *T. rubrum* with blood types, particularly A-type that has isoantigen similar to glycoprotein that is found in the cell walls of *T. rubrum*. Others showed the opposite. Still other studies showed another influence, including genetic activity that corresponds to vulnerability to get the chronic infection of *T. rubrum*.

These unclear results triggered the lecturer from Universitas Mulawarman’s Faculty of Medicine to study other systems that regulate body immunity against antigen, namely Human Leucocyte Antigens (HLA) system that is found in the blood and tissues under a special study of Samarinda community. The HLA system is a genetic system most polymorphic as compared to other systems.

In his research he saw the significant relations between polymorphism of HLA-DR4 and HLA-DR6 genes in chromosome 6 with case as risk factor that increases the possibility for chronic dermatofitosis due to *T. rubrum*. Meanwhile, there is no relation between HLA-DR4 and HLA-DR6 in ABO blood types with case as risk factor that increases chronic dermatofitosis of *T. rubrum*.

“This result informs and educates patients or families that chronic Dermatofitosis due to *T. rubrum* corresponds to genetic factor (polimorfisme HLA) and certain blood type as risk factors for that disease, so prevention can be made in advance,” he said.

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