

# Efektivitas pemeriksaan mikroskopik sebagai metode diagnostik sederhana untuk mendeteksi malabsorpsi lemak pada anak = Effectivity of microscopic test as a simple diagnostic method to detect fat malabsorption in children

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## Abstrak

### [<b>ABSTRAK</b><br>

Latar Belakang Lemak merupakan sumber energi penting, komponen utama struktur membran sel dan media penyerapan vitamin larut lemak A, D, E, dan K. Lemak adalah nutrisi utama perkembangan otak anak, penting untuk memeriksa malabsorpsi lemak secara akurat dan tepat. RSCM merupakan rujukan pemeriksaan analisis feses, dengan sekitar 840 pemeriksaan mikroskopik lemak per tahun. Pemeriksaan mikroskopik lemak merupakan satu-satunya yang tersedia di laboratorium RSCM untuk pemeriksaan lemak feses.

Tujuan Mengetahui kehandalan pemeriksaan mikroskopik lemak pada analisis feses dalam menggambarkan malabsorpsi lemak pada anak.

Metode Uji diagnostik kehandalan pemeriksaan mikroskopik lemak menggunakan Sudan III dibandingkan dengan steatokrit dalam mendiagnosis malabsorpsi lemak pada anak usia 6-60 bulan.

Hasil Didapatkan 68 sampel yang terdiri dari 41 laki-laki dan 27 perempuan, median usia 14,3 bulan. Konsistensi feses terbanyak adalah lembek (50,0%). Dengan metode mikroskopik didapatkan lemak terbanyak adalah positif satu pada 29 sampel (42,6%). Sensitivitas pemeriksaan mikroskopik lemak didapatkan sebesar 49,15%, spesifisitas sebesar 66,67%, dengan nilai prediksi positif 90,63% dan nilai prediksi negatif 16,67%.

Kesimpulan Pemeriksaan mikroskopik lemak memiliki sensitivitas yang tidak terlalu tinggi dalam mendiagnosis malabsorpsi lemak dan perlu dilengkapi dengan metode lain seperti steatokrit.

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### <b>ABSTRACT</b><br>

Background Lipid is a very important source of energy, major component of cell membrane structure and media for absorption of lipid-soluble vitamins A, D, E, and K. Lipid is the major nutrition for brain development, and thus it is important to test lipid malabsorption accurately. RSCM is the referral hospital for fecal analysis, with 840 lipid microscopic examination done each year. This microscopic test is the only method currently available for fecal lipid malabsorption at RSCM laboratory.

Objective To know whether the lipid microscopid test as a part of fecal analysis that have been done so far is effective in representing lipid malabsorption in children.

Methods Diagnostic test for effectivity of lipid microscopic test using Sudan III compared to steatocrit test in diagnosing lipid malabsorption in children 6-60 months old suspected to have lipid malabsorption.

Results Sixty-eight children consisting of 41 boys and 27 girls were included in the study, with median age 14,3 months. The most common stool consistency was mushy (50,0%). Using microscopic method the most frequent group was positive one in 29 subjects (42,6%). Sensitivity of lipid microscopic test was found to be 49,15% with specificity 66,67%, PPV 90,63% and NPV 16,67%.

**Conclusion** The lipid microscopic test has a moderate sensitivity in diagnosing fat malabsorption, and needs to be complemented with other method such as steatocrit., Background Lipid is a very important source of energy, major component of cell membrane

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**Objective** To know whether the lipid microscopic test as a part of fecal analysis that is performed routinely so far is effective in representing lipid malabsorption in children.

**Methods** Diagnostic test for effectivity of lipid microscopic test using Sudan III compared to steatocrit test in diagnosing lipid malabsorption in children 6-60 months old suspected to have lipid malabsorption.

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