

МОНГОЛ УЛСЫН БОЛОВСРОЛ, СОЁЛ ШИНЖЛЭХ УХААН, СПОРТЫН ЯАМ
АНАГААХЫН ШИНЖЛЭХ УХААНЫ ҮНДЭСНИЙ ИХ СУРГУУЛЬ

Гар бичмэлийн эрхтэй©

ГАЛСАНЖИГМЭДИЙН НАРХАЖИД

**ИНСУЛИНД ДӨЖРӨЛИЙГ ЦУСНЫ СИЙВЭН ДЭХ ТРИГЛИЦЕРИД, ИХ
НЯГТТАЙ ЛИПОПРОТЕИНЫ ХАРЬЦААГААР ТОДОРХОЙЛСОН
СУДАЛГАА**

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ТОВЧ ХУРААНГУЙ

ИНСУЛИНД ДӨЖРӨЛИЙГ ЦУСНЫ СИЙВЭН ДЭХ ТРИГЛИЦЕРИД, ИХ НЯГТТАЙ ЛИПОПРОТЕИНЫ ХАРЬЦААГААР ТОДОРХОЙЛСОН СУДАЛГАА

Үндэслэл: Бие махбодын инсулинд мэдрэг чанар буурахыг инсулинд дөжрөл гэх ба таргалалт, илүүдэл жин, БСХШ, ЧШХШ-2 зэрэг эмгэгийн үед тохиолддог байна. Сүүлийн үеийн судалгаагаар сийвэнгийн ТГ ба ИНЛП түвшин нь инсулинд дөжрөлтэй шууд хамааралтай болох нь тодорхойлогдсон байна.

Зорилго: Монгол хүмүүст цусны сийвэн дэх ТГ, ИНЛП-ийн харьцаагаар инсулинд дөжрөлийг тодорхойлж, инсулинд дөжрөлийн итгэх нэгжийг тооцох.

Арга зүй: Судалгааны ажлыг аналитик судалгааны агшингийн загвараар хийсэн ба судалгааны мэдээ, материалыг тоон судалгааны аргаар цуглуулсан. Бид ЧШӨ илрүүлэх шинжилгээнд хамрагдсан нийт 50 үйлчлүүлэгчийг санамсаргүй түүврийн аргаар сонгон авч, судалгаанд оролцогчдод таниулсан зөвшөөрлийн хуудсыг танилцуулж, зөвшөөрөл авсан антропометрийн хэмжилтүүдээр төвийн таргалалт болон таргалалтын байдлыг үнэлсэн. Судалгаанд оролцогчдоос цусны сорьц авч глюкоз, ТГ, холестерол, ИНЛП, БНЛП, инсулиныг шинжилж, HOMA-IR индекс, ТГ/ИНЛП-г тодорхойлсон.

Үр дүн: Бидний судалгаанд нийт 50 үйлчлүүлэгч хамрагдсан. Судалгааны явцад 4 оролцогч цусны сорьц өгөхөөс татгалзсаны улмаас нийт 46 оролцогчдод HOMA-IR индексийг тооцож үзэхэд 30 (65.2%) нь инсулинд дөжрөлтэй байв. Инсулинд дөжрөлтэй оролцогчдод HOMA-IR индекс 5.84 ± 2.96 , ТГ/ИНЛП 1.85 ± 1.17 байсан нь инсулинд дөжрөлгүй оролцогчдынхоос өндөр байв ($p < 0.05$). HOMA-IR, ТГ/ИНЛП нь эрэгтэйд сул, эерэг ($p < 0.05$, $r = 0.27$), эмэгтэйд дунд эерэг ($p < 0.001$, $r = 0.55$) хамааралтай байв. Судалгаанд хамрагдсан оролцогчдын HOMA-IR индексийн итгэх нэгж 2.64 (sensitivity 100%, specificity 100%) байсан бол ТГ/ИНЛП-ны итгэх нэгж 1.2 (sensitivity 69.2%, specificity 87.5%) байв.

Дүгнэлт: ТГ/ИНЛП нь хүйс харгалзахгүй инсулинд дөжрөлийг тодорхойлох боломжтой ба ТГ/ИНЛП -ны итгэх нэгж 1.2 байх нь HOMA-IR индексийн итгэх нэгжтэй дүйж байна.

Түлхүүр үг: Инсулинд дөжрөл, чихрийн шижин хэв шинж 2, өөх тосны үзүүлэлтүүд.

ABSTRACT

ASSOCIATION OF SERUM TRIGLYCERIDE TO HIGH DENSITY LIPOPROTEIN CHOLESTEROL RATIO WITH INSULIN RESISTANCE

Background: Insulin resistance, characterized by an inadequate physiologic response to insulin, is one of the major risk factors for type 2 diabetes mellitus, overweight, obesity and metabolic syndrome. Recent studies shows, that Triglycerides (TG) and the triglyceride to high-density lipoprotein concentration ratio (TG/HDL) have been reported to be closely related to insulin resistance.

Purpose: To investigate the triglyceride and high-density lipoprotein ratios as an insulin resistance marker and compare with HOMA-IR.

Materials and methods: This cross-sectional study included 50 individuals. All participants were informed of the purposes and procedures of the study and provided written consent before participation. Participant assessments included anthropometric measures (weight, height, waist circumference, BMI and blood pressure) and blood draws for fasting blood glucose, insulin and lipid profiles (total cholesterol, TG, HDL, and LDL).

Results: 50 adult subjects enrolled into the study. 4 subjects excluded from the study. 30 (65.2%) participants detected insulin resistance. Participants with insulin resistance had significantly higher values for weight, BMI, WC, HC, WC/HC, blood pressure, glucose, insulin, TG than the participants without insulin resistance. A positive correlation between HOMA-IR index and TG/HDL was observed. The cut-off point of HOMA-IR was 2.64 (sensitivity 100%, specificity 100%) and the cut-off point of TG/HDL was 1.2 (sensitivity 69.2%, specificity 87.5%).

Conclusions: The TG/HDL ratio can reliably be used to predict insulin resistance comparing to HOMA-IR.

Key words: Insulin resistance, Diabetes mellitus type 2, lipid profiles.

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