

# 主 論 文 要 旨

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主 論 文 題 名			
Influence of Meibomian Gland Dysfunction and Friction-Related Disease on the Severity of Dry Eye (ドライアイの重症度におけるマイボーム腺機能不全と摩擦関連疾患の影響)			
(内容の要旨)			
<p>Dry eye disease (DED) is a multifactorial disease of the tears and ocular surface. It is not uncommon to encounter more than 1 risk factor in a patient with DED, and it is necessary to determine the contribution of each risk factor to the total picture. Meibomian gland dysfunction (MGD) is a functional disorder of the meibomian glands associated with lipid deficiency, whereas friction related diseases (FRD) is a set of diseases resulting from mechanical trauma and consequent inflammation during blinking. To evaluate the influences of MGD and FRD on the severity of DED, a cross-sectional study was conducted among 449 patients with DED (63 men and 386 women; mean age, <math>62.6 \pm 15.7</math> years [range, 21-90 years]). Subjective symptoms, the ocular surface, tear function, and the presence of MGD and FRD (superior limbic keratoconjunctivitis, conjunctivochalasis, and lid wiper epitheliopathy) were investigated. The participants were classified into aqueous-deficient dry eye (ADDE; <math>n = 231</math> [51.4%]) and short TBUT dry eye subtype (TBUT-DE; <math>n = 109</math> [24.3%]) subgroups. The TBUT was shorter in patients with MGD than in those without MGD, whereas other ocular signs showed no difference (TBUT: MGD present, <math>1.97 \pm 1.02</math> seconds; MGD absent, <math>2.94 \pm 1.63</math> seconds [<math>P &lt; 0.001</math>]; ADDE/MGD present, <math>1.94 \pm 1.08</math> seconds; ADDE/MGD absent, <math>2.77 \pm 1.61</math> seconds [<math>P &lt; 0.001</math>]; short TBUT-DE/MGD present, <math>2.07 \pm 0.97</math> seconds; short TBUT-DE/MGD absent, <math>2.94 \pm 1.23</math> seconds [<math>P = 0.01</math>]). The ADDE patients with FRD showed a worse TBUT than ADDE patients without FRD (TBUT: ADDE/FRD present, <math>2.08 \pm 1.39</math> seconds; ADDE/FRD absent, <math>2.92 \pm 1.54</math> seconds; <math>P &lt; 0.001</math>). This study showed associations between MGD, FRD, or both and ocular signs in DED. In the presence of MGD, FRD, or both, TBUT was significantly shortened regardless of the dry eye status or subtype. The results also provide evidence to support the role of mechanical force on ocular signs in insufficient tear conditions. (300 words)</p>			