



Title	Mutual associations among responsiveness to differential diagnostic tests for Cushing's disease, tumor size, and somatostatin receptor 5 expression in corticotroph tumors
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論文内容の要旨
Synopsis of Thesis

氏名 Name	Budzen Karolina Anna
論文題名 Title	Mutual associations among responsiveness to differential diagnostic tests for Cushing's disease, tumor size, and somatostatin receptor 5 expression in corticotroph tumors (クッシング病において、「鑑別診断検査に対するホルモン反応性」、「下垂体腫瘍のサイズ」、「下垂体腫瘍組織におけるソマトスタチン受容体5の発現」は相互に関係する)
論文内容の要旨 〔目的(Objective)〕	<p>There are differences in the responsiveness to differential diagnostic tests for Cushing's disease (CD), corticotroph tumor size, and somatostatin receptor (SSTR) 5 expression between CD patients. The differences in SSTR5 expression are particularly significant for identifying therapeutic targets for CD. However, prospective predictors of SSTR5 expression remain unclear. Thus, our objective was to elucidate the relationships among these clinical characteristics of CD, including SSTR5 expression.</p>
〔方法ならびに成績(Methods/Results)〕	<p>In 27 hospitalized patients with CD at Osaka University Hospital, associations between corticotroph tumor diameter, the response of ACTH and cortisol to differential diagnostic tests for CD (CRH, desmopressin [DDAVP], and high-dose dexamethasone suppression test [HDDST]), the ACTH/cortisol index, and the SSTR5 immunoreactive score in corticotroph tumors were retrospectively investigated.</p> <p>The response to differential diagnostic tests, ACTH/cortisol index, tumor diameter, and SSTR5 expression were significantly related (vs. tumor diameter [CRH: $r=-0.54$; DDAVP: $r=-0.54$; HDDST: $r=-0.67$; ACTH/cortisol index: $r=0.76$; SSTR5: $r=-0.61$], vs. CRH [DDAVP: $r=0.63$, HDDST: $r=0.72$, ACTH/cortisol index: $r=-0.45$; SSTR5: $r=0.56$], vs. DDAVP [HDDST: $r=0.66$; ACTH/cortisol index: $r=-0.46$; SSTR5: $r=0.76$], vs. HDDST [ACTH/cortisol index: $r=-0.62$; SSTR5: $r=0.77$], ACTH/cortisol index vs. SSTR5: $r=-0.67$]). The areas under the receiver operating characteristic curve for the prediction of high SSTR5 expression via the CRH test, DDAVP test, HDDST, ACTH/cortisol index, and tumor diameter were 0.79, 0.87, 0.80, 0.71, and 0.71, respectively.</p>
〔総括(Conclusion)〕	<p>Tests for differential diagnosis of CD, the ACTH/cortisol index, and the corticotroph tumor diameter have the potential for identifying SSTR5 expression in corticotroph tumors. These parameters may reflect the biological characteristics of corticotroph tumors.</p>

論文審査の結果の要旨及び担当者

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論文審査の結果の要旨		
<p>There are differences in the responsiveness to differential diagnostic tests for Cushing's disease (CD), corticotroph tumor size, and somatostatin receptor (SSTR) 5 expression between CD patients. The differences in SSTR5 expression are particularly significant for identifying therapeutic targets for CD. However, prospective predictors of SSTR5 expression remain unclear.</p> <p>This study aimed to elucidate the relationships among these clinical characteristics of CD, including SSTR5 expression.</p> <p>In 27 hospitalized patients with CD at Osaka University Hospital, associations between corticotroph tumor diameter, the response of ACTH and cortisol to differential diagnostic tests for CD (CRH, desmopressin [DDAVP], and high-dose dexamethasone suppression test [HDDST]), the ACTH/cortisol index, and the SSTR5 immunoreactive score in corticotroph tumors were retrospectively investigated.</p> <p>The response to differential diagnostic tests, ACTH/cortisol index, tumor diameter, and SSTR5 expression were significantly related (<i>vs.</i> tumor diameter [CRH: $r=-0.54$; DDAVP: $r=-0.54$; HDDST: $r=-0.67$; ACTH/cortisol index: $r=0.76$; SSTR5: $r=-0.61$], <i>vs.</i> CRH [DDAVP: $r=0.63$, HDDST: $r=0.72$, ACTH/cortisol index: $r=-0.45$; SSTR5: $r=0.56$], <i>vs.</i> DDAVP [HDDST: $r=0.66$; ACTH/cortisol index: $r=-0.46$; SSTR5: $r=0.76$], <i>vs.</i> HDDST [ACTH/cortisol index: $r=-0.62$; SSTR5: $r=0.77$], ACTH/cortisol index <i>vs.</i> SSTR5: $r=-0.67$]). The areas under the receiver operating characteristic curve for the prediction of high SSTR5 expression via the CRH test, DDAVP test, HDDST, ACTH/cortisol index, and tumor diameter were 0.79, 0.87, 0.80, 0.71, and 0.71, respectively.</p> <p>Tests for differential diagnosis of CD, the ACTH/cortisol index, and the corticotroph tumor diameter have the potential for identifying SSTR5 expression in corticotroph tumors. These parameters may reflect the biological characteristics of corticotroph tumors.</p> <p>This research is worth being granted a doctoral degree(medicine).</p>		