

through reduced resilience and increased job stressors.

【Conclusions】

This study showed that parenting styles in childhood affect the psychological and physical stress responses through the influence on resilience and job stressors. No studies have reported the mediating effect of resilience between maternal and paternal parenting and job stress in adulthood. The results of this study may contribute to the elucidation of factors that exacerbate or reduce job stress.

P1-05.

Effects of chronotypes and sleep disturbance on job stress : A study by covariance structure analysis

(社会人大学院博士課程3年精神医学分野)

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【Objectives】 The chronotype is generally called morningness or eveningness type and has a great influence on our lifestyle. In addition, the eveningness type is more prone to be depressive and to have sleep disturbance than the morningness type. On the other hand, Japanese government launched the Stress Check Program in order to improve work environment and stress. It is reported that job stress affects sleep disturbance and depressive symptoms. We examined how eveningness chronotype influences job stress through sleep disturbance.

【Methods】 The study included 535 general adult volunteers. In this study, we used Diurnal Type Scale for chronotype evaluation, Pittsburg Sleep Quality Index for sleep disturbance and Brief Job Stress Questionnaire (BJSQ) for job stress. We used the sub-items of job stressors, psychological and physical stress response (PPSR) in BJSQ for the analysis. We investigated the relationship between chronotype, sleep disturbance and job stress by covariance structure analysis. The study was approved by the ethics committee of Tokyo Medical University.

【Results】 Eveningness type had a direct effect on sleep disturbance and PPSR. However, the eveningness type significantly increased job stressors and PPSR indirectly through sleep disturbance. Furthermore, the eveningness type indirectly increased PPSR through the combined paths of sleep disturbance and job stressors. In addition, sleep disturbance indirectly increased PPSR through job stressors.

【Conclusion】 Job stress may be reduced by improving sleep disturbance in workers with the eveningness type.

P1-06.

Absence of posterior vitreous detachment as a possible risk factor of severe bleb-related endophthalmitis

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Purpose : Bleb-related endophthalmitis (BRE) after glaucoma surgery is an infection caused by bacteria in the avascular bleb gaining access into the eye. We report the clinical features and outcome of eyes with severe BRE treated at our hospital.

Methods : 11 patients (11eyes) with stage IIIb BRE after trabeculectomy diagnosed and treated at Tokyo Medical University hospital between April 2013 and May 2019 were studied. Patient background, type of glaucoma, interval from the first trabeculectomy to the onset of BRE, bleb findings before onset of BRE, surgical procedure, status of posterior vitreous detachment (PVD) confirmed during vitrectomy, and postoperative visual acuity were retrospectively reviewed by medical chart.

Results : The 11 patients comprised 9 males and 2 females, with mean age of 68.6 years at BRE onset. All eyes underwent trabeculectomy. The interval from the first trabeculectomy to the onset of BRE was 6.7 ± 7.4 years. All eyes revealed leakage of aqueous humor from the avascular bleb before onset of BRE. BRE was treated by vitrectomy in 10 eyes, and enucleation in 1 eye. In 6 eyes underwent vitrectomy with induction of

PVD. Histopathological examination of the enucleated eye showed no PVD. Decimal visual acuity improved by 3 lines or more in 6 patients and remained lower than 0.1 in 5 patients.

Conclusion: BRE developed frequently in eyes with no PVD. The absence of PVD may be a risk factor of severe BRE.

P1-07.

Comprehensive genetic analysis of IgG4-related ophthalmic diseases by RNA sequencing

(大学院博士課程 1年臨床医学系 眼科学分野)

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Purpose: High-throughput RNA sequencing uses massively parallel sequencing that allows unbiased analysis of both genome-wide transcription levels and mutation status of tumors. Immunoglobulin G4-related ophthalmic disease (IgG4-ROD) is a fibroinflammatory disease characterized by enlargement of ocular adnexal tissues, infiltration of IgG4-positive plasmacytes, and elevated serum IgG4 levels. Comprehensive analysis of gene abnormalities in IgG4-ROD may play an important role in discovering new biomarkers. In this study, we analyzed RNA expression levels in biopsy specimens of IgG4-ROD.

Methods: This study included 3 patients who were diagnosed with IgG4-ROD at Tokyo Medical University Hospital. Total RNA was extracted from specimens obtained by biopsy and per-tumor adipose tissues as control, and quantified using NextSeq 500.

Results: By comparing RNA expression levels in the biopsy specimens with those in control tissues and extracting genes with an expression ratio of 16 or more and an expression difference of 16 or more, expression differences were observed in 221 genes. Pathway analysis with these genes revealed a difference in

pathways related to immune systems and extracellular matrix organization. Among them we identified seven genes that were associated with IgG4-ROD.

Conclusion: In biopsy specimens of IgG4-ROD, we identified novel gene abnormalities that are associated with extracellular matrix degradation and B cell receptors. These data may contribute to future development of new biomarkers for diagnosis and molecular-targeted drugs to treat this disease.

P1-08.

Identification of novel microRNAs for distinguishing orbital mucosa-associated lymphoid tissue lymphoma from IgG4-related ophthalmic disease

(社会人大学院博士課程 1年眼科)

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Purpose: It is important to distinguish orbital mucosa-associated lymphoid tissue lymphoma (MALT) and benign tumors such as IgG4 related ophthalmic disease (IgG4-ROD) early in the course, since work-up as well as treatment can vary greatly. Although microRNAs (miRNAs) play an important role in the regulation of carcinogenesis and inflammation, the relation between miRNA and orbital lymphoproliferative diseases remains unknown. In this study, we aimed to identify differentially expressed miRNAs and pathways in biopsied specimens and peripheral blood between cases with orbital MALT and IgG4-ROD.

Methods: 38 orbital lymphoproliferative tumors comprising orbital MALT (n=21), IgG4-ROD (n=17) were analyzed by 3D-Gene miRNA microarray.

Results: In serum, IgG4-ROD increased 18 miRNAs, decreased 3 miRNAs compared to MALT. In the tissue, IgG4-ROD increased 23 miRNAs, decreased 3 miRNAs compared to MALT. Pathway analysis with these genes revealed a difference in pathways related to extracellular matrix.