

【Results】 The covariance structure analysis showed that child abuse and subjective social status did not have a direct influence on depressive symptoms in adulthood. Child abuse influenced depressive symptoms in adulthood indirectly through subjective social status and affective temperament as mediators. Subjective social status affected depressive symptoms through its effect on affective temperament. This model explained 43% of the variability in depression symptoms in general adults, and the goodness-of-fit indices were good.

【Conclusions】 In the effect of child abuse on depressive symptoms in adulthood, subjective social status was an important mediator similar to affective temperament. This research seems to contribute to the elucidation of the mechanism of depression.

P1-06.

Mediator effect of subjective social status on depression

(社会人大学院博士課程2年精神医学)

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【Objective】 It is suggested that subjective social status is related to depression. However, it is not clear how subjective social status is involved in depression. The onset of depression is reportedly related to parenting in childhood, self-esteem, and life events in adulthood. Because there is a long-time period between childhood experiences and adulthood symptoms, there must be some mediators to mediate this linkage. It is unclear how subjective social status influences these risk factors. In this study, we investigated the direct and indirect effects of the quality of parenting, subjective social status, and self-esteem on depressive symptoms in general adults.

【Methods】 During the period from January to August 2014, surveys were conducted using self-administered questionnaires in 404 general adult volunteers. The following four questionnaires were used: Patient Health Questionnaire-9 Subjective Social Status, Parental Bonding Instrument, and Rosenberg Self-Esteem Scale.

Data were analyzed by the covariance structure analysis. This study was approved by the ethics committees of Tokyo Medical University.

【Results】 The covariance structure analysis showed that self-esteem decreased depressive symptoms directly but the quality of parenting or subjective social status did not affect them. The quality of parenting increased subjective social status and self-esteem directly, and it decreased depressive symptoms indirectly through subjective social status and self-esteem. This model accounted for 31% of the variability in depressive symptoms, and the goodness-of-fit indices were good.

【Conclusions】 This study pointed out that the effect of the quality of parenting on depressive symptoms in adulthood were mediated by subjective social status and self-esteem. This is the first study that examined these mediator effects. This study contributes to elucidating the role of subjective social status in depression.

P1-07.

Carbapenemase producing bacteria in hospital and community of Bangladesh

(社会人大学院博士課程3年微生物学)

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The spread of carbapenem resistant Enterobacteriaceae (CRE) has become a serious problem on a worldwide scale. Especially in Asia, high frequencies of CRE isolation from patients were reported in India. Although multiple resistant bacteria had been reported mainly in India, there are few reports about surrounding developing countries. Therefore, we first investigated the Carbapenemase producing (CP) strains isolated in hospitalized patients in Bangladesh, the neighboring country of India. Furthermore, because spreading of CRE may happen not only in the hospital but also in the community, we also evaluated the contamination of CRE in the various surface in the community of Dhaka.

From August to October 2015, 586 clinical samples and 34 samples obtained from ICU-environment were collected from Shaku Mujib Medical University Hospital. Three hundred of environmental samples in the community were obtained from various 30 locations in the Dhaka city. Each sample was cultured with CHROMagar mSuperCARBA. Modified carbapenemase inactivation method was performed on the growth strains, and resistant genes were detected by PCR.

CP strains were isolated from 50 clinical samples (8.5%), 11 ICU-environment samples (32.4%) and 2 community-environment samples (0.6%). Among clinical samples, CP strains were isolated from urine, blood, tracheal aspirate, sputum, swab and main bacterial species were *Klebsiella pneumoniae*, *Escherichia coli* and *Acinetobacter baumannii*. In ICU-environment samples, CP strains were isolated from water of oxygen flowmeter, bed handrail, nurse desk, handrail of a door, operation panel of a ventilator and main species were *Pseudomonas aeruginosa*, *K. pneumoniae*, *Enterobacter cloacae*. In community-environment samples, CP strains were isolated from switch panel of the elevator, and main bacterial species were *Serratia phymuthica*. PCR analysis showed the detection of resistant genes of NDM-1/-5/-7/-4 (total 68.0%), OXA-23 like (20.0%), OXA-181/-48 (total 8.0%), VIM (4.0%) from the clinical isolates. NDM-1/-7/-1 variant (total 100%) and VIM (100%) genes were also detected from the samples obtained from the ICU and community-environment, respectively.

In this study, we isolated various CP strains from clinical samples obtained in University hospital in Dhaka. Moreover, CP strains were also isolated from ICU environment and community environment. These results suggest that contamination of environment with CP strains may cause the transmission of bacterial resistance in Bangladesh.

P1-08.

化学物質の呼吸器アレルギー感作性の新規 *in vitro* 評価法の開発

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アレルギー疾患には、大きく分けて皮膚アレルギーである接触性皮膚炎と呼吸器アレルギーである喘息がある。その中で、職業性喘息の患者は、欧米では大人の喘息患者の中で15-18%を占めるとも言われるがその対策は極めて遅れている。感作性を検出する評価法としては、近年の国際的な流れである動物を用いない代替法への移行により、*in vitro* 評価法の開発が進められている。ところが、皮膚と呼吸器の感作性物質に対する危機管理体制が全く異なるにもかかわらず、既存の評価法ではこれらの感作性の違いを識別できない。そこで、本研究では、呼吸器と皮膚アレルギーの根本的な作用機序の違いであり呼吸器感作性に特徴的なヘルパー T (Th) 2 細胞への分化誘導能に着目し、その差異により両者を識別することのできる *in vitro* 評価法の開発を試みた。

より生体に近い *in vitro* 評価法を開発するため、気道上皮細胞株とヒト末梢血 CD14 陽性単球より分化誘導した未成熟 DC、繊維芽細胞株の3種類の細胞を、多孔質の Scaffold (足場材) を用いてそれぞれ3次元培養後、順に重層し3次元共培養系を構築した。次に、呼吸器および皮膚感作性化学物質として、それぞれ代表的な3種類ずつの化学物質を用いて刺激後、免疫組織学的解析とリアルタイム RT-PCR による解析を行った。その結果、各物質で刺激後、抗 CD11c 抗体を用いた解析で、上皮細胞層や繊維芽細胞層への DC の顕著な移動は見られなかった。次に、mRNA 発現解析により、DC 層で DC 成熟化の指標である副刺激分子 CD80 や CD86 などの発現増強には差がなかったが、皮膚感作性化学物質の刺激に比べ呼吸器感作性化学物質の刺激により Th2 分化に重要な副刺激分子 OX40L のより強い発現増強が見られた。以上の結果は、この3次元共培養系が呼吸器と皮膚感作性化学物質の識別可能