

### C-3 “Changes in the Prevalence of Allergic Rhinitis and Possible Risk Factors among Children in Ulaanbaatar, Mongolia between 2009 to 2021”

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**Introduction** : Our department conducted a survey in August, 2021, in Ulaanbaatar, Mongolia, with the Mongolian National Medical University of Medical Sciences, to determine any changes from a 2009 survey on pediatric allergic rhinitis prevalence and its possible risk factors.

**Method** : The same questionnaire used in 2009 based on the ISSAC questionnaire with modifications was given in an interview style to the parent(s) of 400 children (200 each male and female). In addition to the questionnaire, mite allergen was checked in a total of 40 households. The survey sites were the same 10 sites used in 2009 with half of them located in the city districts where dwellings were apartments, and the other half were in urban districts where dwellings were mostly Gers. 40 children were selected randomly from each district.

Statistical data analysis was calculated by our Laboratory Assistant using SPSS Ver 28 statistical software from IBM for odds-ratio analysis and, chi-square testing. A P-factor less than 0.05 was considered significant.

**Results** : Prevalence rate of allergic rhinitis of 6-7 year old children in 2021 was 31.3%, a decrease of 13.6% from the results of the 2009 survey where the rate was 44.9%,  $P < 0.001$ . Among the risk factors we looked at in both 2009 and 2021, asthma prevalence decreased from 20.9% to 5.5%, while smoking by family members in the house during pregnancy decreased from 53.1% to 29.5%, and smoking while the child was 1 to 3 years of age decreased from 53.3% to 27.6%. None of other risk factors examined in 2021 could be compared as they were not in the 2009 survey. These included mite allergen testing, and questions on indoor smoke from heating and cooking, the type of dwelling (Ger vs apartment), or the amount of time spent outdoors by the child.

**Conclusion** : There was a significant decrease in the prevalence of pediatric allergic rhinitis between 2009 and 2021. Based on this survey, we believe the decrease could be attributed to asthma, and smoking in the house either during pregnancy or between the age of 1 to 3 years of the child, as both risk-factors also showed significant decrease.

### D-1 当院に於ける COVID-19 診療と担当した呼吸器・アレルギー内科医師の SARS-CoV-2 抗体価の推移

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**【目的】** 獨協医大埼玉医療センターに於ける入院 COVID-19 患者全ての診療実態と転帰を把握し, 実働診療した医師への感染危険度を評価することは, 今後も起こり得る未知な新興感染症発生時の迅速な対応と適切な対策作りに重要であり本研究を行った。

**【方法】** 2020年4月1日から2022年9月30日の期間, 当施設にて入院加療を行った COVID-19 患者についての詳細と, 患者診療に専従した呼吸器・アレルギー内科医師 21 名 (期間中に 4 回の BNT162b2 mRNA ワクチンを接種済) における SARS-CoV-2 に対する血清中スパイク蛋白質抗体 (IgG S 抗体) とヌクレオカプシド蛋白質抗体 (IgG N 抗体) を, ① 2021 年 2 月 5 日, ② 2021 年 12 月 1 日, ③ 2022 年 5 月 17 日, ④ 2022 年 8 月 22 日の計 4 回測定した。

**【結果】** 入院 COVID-19 患者 585 人 (軽症・中等症 I 312 人, 中等症 II 180 人, 重症 93 人), HFNC 装着 47 人, 人工呼吸器装着 64 人, ECMO 装着 17 人, 死亡 47 人であった。医師 21 名に於ける計 4 回の抗体価平均値の推移は, ① コロナワクチン接種前 IgG S 抗体 / IgG N 抗体 :  $1.18 \pm 0.84$  AU/mL /  $0.018 \pm 0.009$  Index, ② ワクチン接種 2 回目後 :  $483.1 \pm 240.3 / 0.064 \pm 0.043$ , ③ ワクチン接種 3 回目後 :  $6,767.5 \pm 3,135.3 / 0.085 \pm 0.019$ , ④ ワクチン接種 4 回目前 :  $11,418.1 \pm 4,640.6 / 0.117 \pm 0.085$  であった。ワクチン接種により IgG S 抗体の有意な上昇を認めたが, 真のコロナウイルス感染の指標となる IgG N 抗体の上昇は認められなかった。

**【結語】** 入院 COVID-19 患者に対しての治療内容と転帰を報告した。標準感染予防策 + PPE 装着下による診療行為にて, 患者からの明らかな SARS-CoV-2 感染伝播は確認されなかった。