**[Total word counts: XXX]**

**【Original Article・Case Report・Short Communication・Review】**

Current status of drug discovery in the field of child neurology

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**Abstract] (XX Words)**

***Objective:*** To clarify the scientific effect of drug discovery…………….

***Methods:*** Drug discovery in the field of child neurology was retrospectively analyzed. For this purpose, previously published 53 reports were used as the subject……………….

***Results:*** Overall success rate was 6/53 (11.3%). Glucose metabolism disorder 3/3 (100%), …………………………………..

***Conclusions:*** For some disorders in the field of child neurology, success rate of drug discovery was

**Keywords:** child neurology, new drug development, glucose metabolic disorders

**Introduction**

In the field of pediatric neurology, drug development for rare diseases has been desired1), especially for glucose metabolism disorders ……………………………………………….

…………………… There are high expectations for new drugs that will be developed in the future7).

**I Materials and methods**

From August 2009 to March 2015, we targeted 53 studies in which new drugs were developed in the field of pediatric neurology1).

……………………………….

This study was explained using the consent explanation document of the "Fact-finding Survey of New Drugs", which was submitted to the Ethics Committee of XX University Hospital and obtained permission (approval number 2018-11, approved on November 11, 2018). In cases where interviews were not possible, explanations were given by mail and consent was obtained.

**II Results**

**1. Basic information**

Fifty three studies were covered…………………………

**2. Drug effect and prognosis**

Six reports of 53 studies………………………(Fig. 1)

………………………………(Supplementary material 1).

**Ⅲ Discussion**

In the pediatric neurological disorders of 53 studies for which information was collected at the university hospital，………………………………

………………………………

We would like to express our deep gratitude to the patients and referral doctors who cooperated in collecting valuable data.…………………………

CONFLICT OF INTEREST

Sato A and Suzuki S; no conflict of interest. Takahashi T; lecture fee (X Pharmaceutical)

Supplementary material(s) is(are) published in the on-line J-STAGE version.

**References**

1) Yamada H, Yamada T. Early identification of drug discovery. J Jap Med 2018;34:34-9.

2) Yamada H. Flow of treatment from the development of new drugs. Yamada T, supervision, Yamada H, ed. Pediatric Neurology Drug Practice Manual Revised 2nd Edition Augmented Edition. Tokyo: SHINDAN TO CHIRYO SHA,Inc., 2018: 17-23.

3) …………………………………………………

**Figure legends**

**Table 1: Basic information of the patients**

**\*, p<0.05**

**Figure 1: New drugs and the patients with side effects**

2The aggregate of data as of November 20, 2018 is shown.

Infectious diseases: encephalitis, encephalopathy, etc., Glut-1 abnormalities: glucose transporter-1 abnormalities

**Figure 2: Changes in drug development**

The aggregate of data as of November 20, 2018 is shown. The distribution of research frequency before and after the development of treatment methods is shown.

**Supplementary material 1: Cerebral Palcy Quality of Life-Teen Version2 July 2013**

**電子付録１：CPQOL-Teen 自己回答版日本語訳**

**〔和文要旨〕**

小児神経学における新薬開発の現状について

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【目的】新薬開発の科学的効果を明らかにする．

【方法】薬剤研究に関する過去の53の報告を対象として，新薬開発を後方視的に検討した．

【結果】新薬開発率は6/53例(11.3%)で，グルコース代謝異常症3/3(100%)，………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………

【結論】小児神経学における新薬開発は，研究活動の一部において………………………………………………………………………………………………………………………

**「見出し語」**小児神経学，新薬開発，グルコース代謝異常症