育に対しては 64 mg/kg 以上と推定された。

文 献

- 前田博ほか:高分子ヒアルロン酸ナトリウム (NRD101) のラットにおける28日間腹腔内投与 による亜急性毒性試験および28日間の回復試験. 薬理と治療22(Suppl 3): s 423-451, 1994
- 2) 松浦哲郎ほか:高分子ヒアルロン酸ナトリウム (NRD101) のラットにおける妊娠前および妊娠 初期投与試験、薬理と治療 **22**(Suppl 3): s 565 -576, 1994
- Barrow MV, Taylor WJ: A rapid method for detecting malformations in rat fetuses. J Morphol 127: 291–306, 1969
- 4) 西村耕一:マウスおよびラット胎児の胸腹部内臓 奇形観察のための顕微解剖法. 先天異常 (Cong Anom) 14:23-40, 1974
- Dawson AB: A note on the staining of the skeleton of cleared specimens with alizarin red S. Stain Technol 1: 123-124, 1926

- 6) Lynch A et al: Motor co-ordination and cerebellar size in adult rats under nourished in early life. Brain Research 83: 249-259, 1975
- Hall CS: Drive and emotionality; Factors associated with adjustment in the rat. J Comp Psychol 17: 89-108, 1934
- Butcher RE et al: Postnatal effects in rats of prenatal treatment with hydroxyurea. Teratology 7: 161-166, 1973
- 9) 奈良間功ほか:高分子ヒアルロン酸ナトリウム (NRD101) のラットにおける 26 週間腹腔内投与 による慢性毒性試験および 5 週間の回復試験. 薬 理と治療 **22**(Suppl 3): s 485-526, 1994
- 10) 亀山義郎ほか編:実験動物における自然発生奇 形;写真図譜および参考資料. 先天異常 (*Cong Anom*) **20**: 25-106, 1980
- Morita H et al: Spontaneous malformations in laboratory animals; Frequency of external, internal and skeletal malformations in rats, rabbits and mice. Cong Anom 27: 147-206, 1987

Teratological Study of High Molecular Weight Sodium Hyaluronate (NRD101) in Rats

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A teratogenecity study was performed in Sprague-Dawley rats treated intraperitoneally with NRD101 at the dosage levels of 16, 32 and 64 mg/kg/day (as the weight of sodium hyaluronate) from day 7 to day 17 of pregnancy. In each group, 20–22 female rats were sacrificed on day 20 of pregnancy for the examination of their fetuses, and 13–15 female rats were allowed to litter naturally for the postnatal examination of their offspring.

Clinical symptoms and mortality attributable to NRD101 administration were not observed in the dams (P). Body weight gain in dams of 64 mg/kg group increased due to retention of the test solution in the abdominal cavity. NRD101 did not affect food consumption.

NRD101 showed no adverse effects on the fetal mortality, prenatal development or teratogenecity of the fetuses.

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No adverse effects on the postnatal development of the offspring-including reproductive ability were detected.

The results suggest that non-effective dose level of NRD101 is more than 64 mg/kg for dams, for fetuses and for development in offspring, respectively.

KEY WORDS

NRD101, Sodium hyaluronate, Teratological study, Rat

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