



USE OF VIGANTOL IN RICKETS



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Abstract. Three preparations of "Vigantol" were used; a solution in olive oil, pastilles made up with cocoa-butter, and sugar-coated, tablets. All three preparations were rapidly effective in the treatment of uncomplicated cases of rickets, but rachitic infants suffering from acute infections such as bronchopneumonia and osteomyelitis showed definite delay in response to the treatment. In one such case radiograms showed distinct healing after 10 days of treatment, while the serum phosphorus remained at its previous low level.

Keywords: vigantol, antirachitic vitamin, calcium, X-ray, vitamin D2

Nine babies with florid rickets, of whom some had tetany also, were treated with vitamin D2 as a dose of 2 ml. vigantol injected intramuscularly every other day for 30 days, but there was no healing of rickets apparent in X-ray, although the serum Ca value slowly rose and tetany was usually cured. When vigantol was rubbed into the skin of 5 babies for 40 days, with varying precautions, it was completely without effect.

When vitamin D3 was injected intramuscularly in amounts stated to be equivalent to those of vitamin D2, healing set in rapidly in 7 cases, of which 2 had failed to respond to treatment with vitamin D2. The results obtained by others are considered, and it is pointed out that only Nadrai (Abst. 2516, Vol. 8) has reported satisfactory healing with vitamin D2 given intramuscularly.

The author studied the healing of rickets in children, using as a source of antirachitic vitamin a sample of Merck's vigantol. The progress of healing of the rickets was followed by the estimation of serum phosphorus and calcium, and by examination of the bones by X-rays. A low serum-phosphorus was found in pneumonia and narcosis as well as in rickets. Vigantol was found to act like other antirachitic agents in bringing about a rise in serum-phosphorus and a healing of the rickets. After several weeks treatment with vigantol, values for serum-phosphorus were often obtained above 7 mgm, per 100 cc. (the normal being 4.5-5 mgm.). The serum calcium in rickets may be normal or only slightly depressed unless tetany is



present also. In two cases of rickets the author found a high serum-calcium. On administration of vigantol over a period of several weeks, the calcium values tended to approach the normal, the low values rising, the high falling. In cases of tetany with rickets, where the calcium is very low and the phosphorus high, administration of vigantol without calcium served to raise the serum-calcium but failed to bring down the phosphorus. After vigantol treatment of rickets, the rise to a normal serum-phosphorus value was accompanied by signs of healing in the bones. After 14 days, a calcification zone could be observed in the epiphyses, and after 2-3 weeks' further treatment, healing was practically complete. This healing is far quicker than that obtained by ultra-violet irradiation. In cases of severe fracture of the shaft bones in rachitic children, several weeks* treatment with vigantol produced. no signs of healing. On treating with vigantol and calcium (as calcium citrate for young children and lime for older children), healing was evident in 2-3 weeks.

REFERENCES

1. Saodat, A., Vohid, A., Ravshan, N., & Shamshod, A. (2020). MRI study in patients with idiopathic coxarthrosis of the hip joint. *International Journal of Psychosocial Rehabilitation*, 24(2), 410-415.
2. Axmedov, S. J. (2023). EFFECTS OF THE DRUG MILDRONATE. *Innovative Development in Educational Activities*, 2(20), 40-59.
3. Jamshidovich, A. S. (2023). ASCORBIC ACID: ITS ROLE IN IMMUNE SYSTEM, CHRONIC INFLAMMATION DISEASES AND ON THE ANTIOXIDANT EFFECTS. *EUROPEAN JOURNAL OF MODERN MEDICINE AND PRACTICE*, 3(11), 57-60.
4. Gafurovna, A. N., Xalimovich, M. N., & Komilovich, E. B. Z. (2023). KLIMAKTERIK YOSHDAGI AYOLLARDA ARTERIAL GIPERTENZIYANING KECHISHI. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 23(6), 26-31.
5. Komilovich, E. B. Z. (2023). Coronary Artery Disease. *EUROPEAN JOURNAL OF MODERN MEDICINE AND PRACTICE*, 3(12), 81-87.
6. Эргашов, Б. К. (2023). Артериальная Гипертония: Современный Взгляд На Проблему. *Research Journal of Trauma and Disability Studies*, 2(11), 250-261.
7. ASHUROVA, N. G., MAVLONOV, N. X., & ERGASHOV, B. Z. K. БИОЛОГИЯ И ИНТЕГРАТИВНАЯ МЕДИЦИНА. *БИОЛОГИЯ*, (4), 92-101.
8. Jamshidovich, A. S. (2023). THE ROLE OF THIOTRIAZOLINE IN THE ORGANISM. *Ta'lim innovatsiyasi va integratsiyasi*, 9(5), 152-155.



9. Jamshidovich, A. S. (2023). NEPTRAL IS USED IN LIVER DISEASES. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 35(3), 76-78.
10. Jamshidovich, A. S. (2023). EFFECT OF TIVORTIN ON CARDIOMYOCYTE CELLS AND ITS ROLE IN MYOCARDIAL INFARCTION. *Gospodarka i Innowacje.*, 42, 255-257.
11. Jamshidovich, A. S. (2024). NEUROPROTECTIVE EFFECT OF CITICOLINE. *EUROPEAN JOURNAL OF MODERN MEDICINE AND PRACTICE*, 4(1), 1-4.
12. Jamshidovich, A. S. (2024). THE ROLE OF TRIMETAZIDINE IN ISCHEMIC CARDIOMYOPATHY. *Journal of new century innovations*, 44(2), 3-8.
13. Ergasheva Gulshan Toxirovna. (2024). ARTERIAL GIPERTENZIYA KURSINING KLINIK VA MORFOLOGIK JIHATLARI. *Лучшие интеллектуальные исследования*, 12(4), 244–253.
14. Эргашева Гулшан Тохировна. (2024). НОВЫЕ АСПЕКТЫ ТЕЧЕНИЕ АРТЕРИАЛЬНОЙ ГИПЕРТОНИИ У ВЗРОСЛОГО НАСЕЛЕНИЕ. *Лучшие интеллектуальные исследования*, 12(4), 224–233.
15. Ergasheva Gulshan Tokhirovna. (2024). CLINICAL AND MORPHOLOGICAL ASPECTS OF THE COURSE OF ARTERIAL HYPERTENSION. *Лучшие интеллектуальные исследования*, 12(4), 234–243.
16. Эргашева, Г. Т. (2024). ОСЛОЖНЕНИЯ САХАРНОГО ДИАБЕТА 2 ТИПА ХАРАКТЕРНЫ ДЛЯ КОГНИТИВНЫХ НАРУШЕНИЙ. *TADQIQOTLAR*, 30(3), 112-119.
17. Tokhirovna, E. G. Studying the Causes of the Relationship between Type 2 Diabetes and Obesity. *Published in International Journal of Trend in Scientific Research and Development (ijtsrd)*, ISSN, 2456-6470.
18. Эргашева, Г. Т. (2024). ФАКТОРЫ РИСКА РАЗВИТИЯ САХАРНОГО ДИАБЕТА 2 ТИПА. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 36(5), 70-74.
19. Tokhirovna, E. G. (2024). RISK FACTORS FOR DEVELOPING TYPE 2 DIABETES MELLITUS. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 36(5), 64-69.
20. Эргашева, Г. Т. (2023). Исследование Причин Связи Диабета 2 Типа И Ожирения. *Research Journal of Trauma and Disability Studies*, 2(12), 305-311.
21. Ergasheva Gulshan Toxirovna. (2023). QANDLI DIABET 2-TUR VA SEMIZLIKNING O'ZARO BOG'LIQLIK SABABLARINI O'RGANISH. *Ta'lim Innovatsiyasi Va Integratsiyasi*, 10(3), 168–173.



22. Ergasheva Gulshan Tokhirovna. (2023). Study of clinical characteristics of patients with type 2 diabetes mellitus in middle and old age. *Journal of Science in Medicine and Life*, 1(4), 16–19.
23. Saidova, L. B., & Ergashev, G. T. (2022). Improvement of rehabilitation and rehabilitation criteria for patients with type 2 diabetes.
24. Ergasheva, G. (2023). METHODS TO PREVENT SIDE EFFECTS OF DIABETES MELLITUS IN SICK PATIENTS WITH TYPE 2 DIABETES. *International Bulletin of Medical Sciences and Clinical Research*, 3(10), 104-108.
25. Ergasheva, G. T. (2022). QANDLI DIABET BILAN KASALLANGANLARDA REABILITATSIYA MEZONLARINI TAKOMILASHTIRISH. *TA'LIM VA RIVOJLANISH TAHLILI ONLAYN ILMIY JURNALI*, 2(12), 335-337.
26. ГТ, Э., & Саидова, Л. Б. (2022). СОБЕРШЕНСТВООВАНИЕ РЕАБИЛИТАЦИОННО-ВОССТАНОВИТЕЛЬНЫХ КРИТЕРИЕВ БОЛЬНЫХ С СД-2 ТИПА. *ТА'LIM VA RIVOJLANISH TAHLILI ONLAYN ILMIY JURNALI*, 2(12), 206-209.
27. Тохировна, Е. Г. (2023). О'РТА ВА КЕКСА YOSHLI BEMORLARDA 2-TUR QANDLI DIABET КЕЧИШИНИНГ КЛИНИКО-МОРФОЛОГИК ХУСУСИЯТЛАРИ. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 33(1), 164-166.
28. Эргашева, Г. Т. (2023). Изучение Клинических Особенности Больных Сахарным Диабетом 2 Типа Среднего И Пожилого Возраста. *Central Asian Journal of Medical and Natural Science*, 4(6), 274-276.
29. Каюмова, Г. М., Хамроев, Х. Н., & Ихтиярова, Г. А. (2021). *Причины риска развития преждевременных родов в период пандемии организм и среда жизни к 207-летию со дня рождения Карла Францевича Рулье: сборник материалов IV-ой Международной научнопрактической конференции (Кемерово, 26 февраля 2021 г.)*. ISBN 978-5-8151-0158-6.139-148.
30. Хамроев, Х. Н., & Туксанова, Н. Э. (2021). Characteristic of morphometric parameters of internal organs in experimental chronic alcoholism. *Тиббиётда янги кун*, 2, 34.
31. Каюмова, Г. М., & Nutfilloyevich, K. K. (2023). CAUSE OF PERINATAL LOSS WITH PREMATURE RUPTURE OF AMNIOTIC FLUID IN WOMEN WITH ANEMIA. *AMALIY VA TIBBIYOT FANLARI ILMIY JURNALI*, 2(11), 131-136.
32. Каюмова, Г. М. (2023). TO DETERMINE THE FEATURES OF THE COURSE OF PREGNANCY AND CHILDBIRTH IN WOMEN WITH PRENATAL RUPTURE OF AMNIOTIC FLUID. *AMALIY VA TIBBIYOT FANLARI ILMIY JURNALI*, 2(11), 137-144.



33. Nutfilloyevich, K. K. (2023). STUDY OF NORMAL MORPHOMETRIC PARAMETERS OF THE LIVER. *American Journal of Pediatric Medicine and Health Sciences (2993-2149)*, 1(8), 302-305.
34. Латипов, И. И., & Хамроев, Х. Н. (2023). Улучшение Результат Диагностики Ультразвуковой Допплерографии Синдрома Хронической Абдоминальной Ишемии. *Central Asian Journal of Medical and Natural Science*, 4(4), 522-525.
35. Sh T, U., IK, S., Kh N, H., & Sh I, S. (2023). IMPROVING THE IMMEDIATE RESULTS OF SURGICAL TREATMENT OF ACUTE CHOLECYSTITIS IN PATIENTS WITH LIVER CIRRHOSIS. *Journal of Pharmaceutical Negative Results*, 14(2).
36. Kholikov, F. Y., & Kenzhayev, L. R. (2022). THE CHOICE OF SURGICAL TACTICS FOR THE CORRECTION OF A HIATAL HERNIA IN PATIENTS WITH CHOLELITHIASIS COMBINED WITH GASTROESOPHAGEAL REFLUX. *Interdisciplinary Approaches to Medicine*, 3(2), 14-18.
37. Khamroev, B. S. (2022). RESULTS OF TREATMENT OF PATIENTS WITH BLEEDING OF THE STOMACH AND 12 DUO FROM NON-STEROIDAL ANTI-INFLAMMATORY DRUGS-INDUCED OENP. *Journal of Pharmaceutical Negative Results*, 1901-1910.
38. Хамроев, Х. Н. (2022, October). ФУНКЦИОНАЛЬНОЕ СОСТОЯНИЕ ЖЕЛУДКА ДО И ПОСЛЕ РЕЗЕКЦИИ ЖЕЛУДКА ПРИ “ТРУДНЫХ” ДУОДЕНАЛЬНЫХ ЯЗВАХ. In *PROBLEMS OF MODERN SURGERY, INTERNATIONAL SCIENTIFIC AND PRACTICAL CONFERENCE WITH THE PARTICIPATION OF FOREIGN SCIENTISTS MATERIALS*. Andijan State Medical Institute.
39. Хамроев, Х. Н. (2022). The morphofunctional changes in internal organs during alcohol intoxication. *EUROPEAN JOURNAL OF MODERN MEDICINE AND PRACTICE*, 2(2), 9-11.
40. Khamroyev, X. N. (2022). TOXIC LIVER DAMAGE IN ACUTE PHASE OF ETHANOL INTOXICATION AND ITS EXPERIMENTAL CORRECTION WITH CHELATE ZINC COMPOUND. *European Journal of Modern Medicine and Practice*, 2(2), 12-16.
41. TESHAEV, S. J., TUHSANOVA, N. E., & HAMRAEV, K. N. (2020). Influence of environmental factors on the morphometric parameters of the small intestine of rats in postnatal ontogenesis. *International Journal of Pharmaceutical Research (09752366)*, 12(3).
42. Nutfilloyevich, K. K., & Akhrorovna, K. D. (2024). MORPHOLOGICAL CHANGES IN THE LIVER IN NORMAL AND CHRONIC ALCOHOL POISONING. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 36(3), 77-85.



43. Nutfilloyevich, K. K. (2024). NORMAL MORPHOMETRIC PARAMETERS OF THE LIVER OF LABORATORY RATS. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 36(3), 104-113.
44. Halimova, Y. S. (2023). Morphofunctional Aspects of Internal Organs in Chronic Alcoholism. *AMALIY VA TIBBIYOT FANLARI ILMIY JURNALI*, 2(5), 83-87.
45. Shokirov, B. S. (2021). Halimova Yu. S. Antibiotic-induced rat gut microbiota dysbiosis and salmonella resistance Society and innovations.
46. Халимова, Ю. С., & Шокиров, Б. С. (2021). Репродуктивность и жизнеспособность потомства самок крыс при различной длительности воздействия этанола. In *Актуальные вопросы современной медицинской науки и здравоохранения: Материалы VI Международной научно-практической конференции молодых учёных и студентов, посвященной году науки и технологий, (Екатеринбург, 8-9 апреля 2021): в 3-х т.* Федеральное государственное бюджетное образовательное учреждение высшего образования «Уральский государственный медицинский университет» Министерства здравоохранения Российской Федерации.
47. Khalimova, Y. S. BS Shokirov Morphological changes of internal organs in chronic alcoholism. *Middle European scientific bulletin*, 12-2021.
48. Шокиров, Б. С., & Халимова, Ю. С. (2022). ДИСБИОЗ ВЫЗВАННЫЙ АНИБИОТИКАМИ КИШЕЧНОЙ МИКРОБИОТЫ КРЫС И УСТОЙЧИВОСТЬ К САЛМОНЕЛЛАМ. *Scientific progress*, 3(2), 766-772.
49. Salokhiddinovna, X. Y. (2023). Clinical Features of the Course of Vitamin D Deficiency in Women of Reproductive Age. *EUROPEAN JOURNAL OF INNOVATION IN NONFORMAL EDUCATION*, 3(11), 28-31.
50. Шокиров, Б., & Халимова, Ю. (2021). Антибиотик-индуцированный дисбиоз микробиоты кишечника крыс и резистентность к сальмонеллам. *Общество и инновации*, 2(4/S), 93-100.
51. Salokhiddinovna, X. Y. (2023). MORPHOLOGICAL CHANGES IN PATHOLOGICAL FORMS OF ERYTHROCYTES. *EUROPEAN JOURNAL OF MODERN MEDICINE AND PRACTICE*, 3(11), 20-24.
52. Saloxiddinovna, X. Y. (2023). ERITROTSITLAR PATOLOGIK SHAKLLARINING MORFOLOGIK O'ZGARISHLARI. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 33(1), 167-172.
53. Шокиров, Б., & Халимова, Ю. (2021). Antibiotic-induced rat gut microbiota dysbiosis and salmonella resistance. *Общество и инновации*, 2(4/S), 93-100.
54. Шокиров, Б. С., & Халимова, Ю. С. (2021). Пищеварительная функция кишечника после коррекции экспериментального дисбактериоза у крыс бифидобактериями. In *Актуальные вопросы современной медицинской науки и здравоохранения: Материалы VI Международной научно-практической конференции молодых учёных и студентов, посвященной*



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университет» Министерства здравоохранения Российской Федерации.

55. Salokhiddinovna, X. Y. (2023). Anemia of Chronic Diseases. *Research Journal of Trauma and Disability Studies*, 2(12), 364-372.
56. Salokhiddinovna, X. Y. (2023). MALLORY WEISS SYNDROME IN DIFFUSE LIVER LESIONS. *Journal of Science in Medicine and Life*, 1(4), 11-15.
57. Salohiddinovna, X. Y. (2023). SURUNKALI KASALLIKLARDA UCHRAYDIGAN ANEMIYALAR MORFO-FUNKSIONAL XUSUSIYATLARI. *Ta'lim innovatsiyasi va integratsiyasi*, 10(3), 180-188.
58. Халимова, Ю. С. (2024). КЛИНИКО-МОРФОЛОГИЧЕСКИЕ ОСОБЕННОСТИ ВИТАМИНА D В ФОРМИРОВАНИЕ ПРОТИВОИНФЕКЦИОННОГО ИММУНИТА. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 36(3), 86-94.
59. Saloxiddinovna, X. Y. (2024). CLINICAL FEATURES OF VITAMIN D EFFECTS ON BONE METABOLISM. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 36(5), 90-99.
60. Saloxiddinovna, X. Y. (2024). CLINICAL AND MORPHOLOGICAL ASPECTS OF AUTOIMMUNE THYROIDITIS. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 36(5), 100-108.