Bibliography of Hemorrhagic Fever with Renal Syndrome

Second Edition

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INTRODUCTION TO THE SECOND EDITION

Shortly after publication of the Bibliography of Hemorrhagic Fever with Renal Syndrome (Muroid Virus Nephropathy) in 1983 we found it necessary to begin working on a second edition because of enormous expansion of the field. This second edition includes many new publications on the immunology and molecular biology of the HFRS etiological agent (Hantaan virus), on the circumstances of its occurence in rural and urban populations, on new severe epidemics of the disease in the Republic of Korea with case fatality 5 to 10 percent, and on numerous epidemics in China with case fatality close to 6 percent. Laboratory outbreaks in England and Belgium contributed to better understanding of the epidemiology of the disease. Many new strains of the virus have been isolated in countries of Europe and North America, where the disease was not known before, contributing to a new serological subclassification of the virus strains. The user will find also new materials on clinical, pathological and etiological studies of HFRS, presented on major conferences and symposia held during the last 5 to 8 years that where not fully referenced in the first edition of the Bibliography.

Many colleagues abroad responded to our invitation made in the introduction to the first edition to send information about old and new publications on HFRS made in their countries in their national languages and in local not widely distributed editions. We are very grateful to Professor M.P. Chumakov, Dr. I.N. Gavrilovskaia and Dr. Iu.A. Miasnikov of Moscow, Drs. H.W. Lee and P.W. Lee of Seoul, Dr. A. Svedmyr of Stockholm, Dr. A. Gligic of Belgrade, Dr. R. Yanagihara of Bethesda, Maryland, and Drs. F. Hung and G. Song of China for their helpful revisions and additions to this bibliography.

There were 1,244 references in the first edition as compared to 3,036 in the second edition. We hope this new edition appearing four years after the first edition will serve well the international workers on this newly recognized group of viruses and the disastrous diseases they cause.

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INTRODUCTION TO THE FIRST EDITION

The disease we review in this comprehensive bibliography of the world literature has been known to medicine for over a half century, but the English-speaking world for only the past two decades. It has slowly been appreciated as a major zoonosis of the Eurasian landmass, and in the last few years as a potential problem in other continents. For 18 years after epidemic hemorrhagic fever suddenly became a major disease problem of the United Nations forces in South Korea during the Korean War--thus bringing the Chinese, Russian, and Japanese literature on the disease to the attention of Western medicine--the virus causing the disease could not be isolated or serologically identified. Since the isolation of the etiological agent of Korean hemorrhagic fever (KHF) by Ho-Wang Lee and Pyung-Woo Lee, it has become possible to identify hemorrhagic fever with renal syndrome (HFRS) of the Soviet Far East and the epidemic hemorrhagic fever (EHF) of China and the more recently recognized disease in Japan with the Korean disease. It has also been possible to investigate previously hypothesized relationships between nephropathia epidemica (NE) of Scandinavia, hemorrhagic fever with renal syndrome in the Balkan nations and Korean hemorrhagic fever. A virus of the HFRS group has now been isolated from wild rodents in the United States. In the past few years, it has become clear that urban rats in many parts of the world carry Hantaan virus as do laboratory--bred white rats in Japan and Belgium. It now appears likely that viruses of the KHF or Hantaan virus group will be recognized as a worldwide problem of human disease.

The literature on the disease has appeared in the scientific press in many areas of the world (including the Soviet Union, Japan, Korea, and China, as well as the Balkan area and Scandinavia), and is often difficult to locate and retrieve; thus, we have assembled this bibliography in order to facilitate research.

Terminology

The viral hemorrhagic fevers are characterized by bleeding in a significant portion of patients. They are caused by a diverse array of RNA-containing viruses belonging to the Flavivirus, arenavirus, nairovirus and Bunyamwera virus groups. Yellow fever, caused by a mosquito-borne flavivirus, although described over a century ago, clearly belongs in the group of viral hemorrhagic fevers.

The disease which brought this designation and classification to Western, European and American medicine was epidemic hemorrhagic fever, now called Korean hemorrhagic fever, and it is this disease and diseases caused by serologically related Bunyamwera-like viruses which we now call hemorrhagic fever with renal syndrome. Since urban cases of HFRS (acquired from contact with commensal rats) in Korea and Japan and nephropathia epidemica of Scandinavia rarely show bleeding phenomena, although they are caused by serologically closely related viruses, the term hemorrhagic fever used for these clinical entities is misleading. All known diseases caused by viruses related to the KHF virus (Hantaan virus) are characterized by a proteinuria and azotemia in most patients. The virus is carried to man by excretions and aerosols, probably from infected respiratory droplets, from healthy rodent carriers who excrete the virus from their lungs, in saliva, and in urine. All these unaffected rodent carriers belong to the suprafamily Muroidea and the genera Apodemus, Clethrionomys, Microtus and Rattus. Thus, I have, in consultations with Dr. Robert Traub, recently suggested the name muroid virus nephropathies to replace the name HFRS for all diseases caused by this newly defined group of viruses carried to man by healthy rodents of the suprafamily Muroidea and belonging to the families Muridae (genera Apodemus and Rattus) and Cricetidae (genera Clethrionomys and Microtus).

Historical Background

"Hemorrhagic fever" was a term which came into general use in Western medicine only since the period of the Korean War when an infectious disease new to Western medicine, often accompanied by a bleeding syndrome, appeared among United Nations troops and was designated epidemic hemorrhagic fever.

Subsequently, the Korean disease was often referred to as Korean hemorrhagic fever. During investigation of this new illness, Western physicians became aware of the existence of a whole group of hemorrhagic fevers which had been described in the Soviet Union during the previous decade, and which were usually distinguished by prefacing the term "hemorrhagic fever" with the geographic locality in which the syndromes were observed. Thus, Crimean hemorrhagic fever, Omsk hemorrhagic fever, Far Eastern hemorrhagic fever, Uzbekistan hemorrhagic fever, Central Asian hemorrhagic fever, Yaroslav hemorrhagic fever, and numerous other such terms entered the medical literature. Subsequent investigation established that these designations encompass a number of distinct nosological entities; the viral etiological agent of each of these has been isolated. All are caused by RNA-containing viruses, but they belong to several different taxonomic groups. Unfortunately, the already ambiguous designation "hemorrhagic fever" was later applied to yet other distinct disease entities which were encountered in the Philippine Islands, Thailand, Singapore, Argentina, Bolivia, and elsewhere. To confuse matters further, the name "epidemic hemorrhagic fever," at first applied specifically to the Korean disease, was used by *Index Medicus* and other reference services to include a variety of other infections caused by viruses belonging to very different groups than that causing the Korean disease.

The simple designation "hemorrhagic fever" would best be applied to no single disease entity. Instead, it conveniently describes a syndrome, common to a number of diseases, the rule in some, and the rare exception in others. In many infections an increase in capillary permeability, associated often with small ruptures of capillaries. can produce petechiae and even more extensive cutaneous hemorrhages, and, should this phenomenon extend to other organs petechial hemorrhages, or more severe extravasations of blood into the urinary or gastrointestinal tract, the endocrine and cardiorespiratory systems, the central nervous system, and other tissues of the body may occur. At times this syndrome may give rise to massive bleeding and produce symptoms of hemoptysis or hematemesis, hematuria or gastrointestinal bleeding, uterine hemorrhage, epistaxis, conjunctival hemorrhage, or ecchymoses. Thus, among the common infectious diseases, hemorrhagic syndromes, which could be properly designated hemorrhagic fever, may appear in typhoid fever, chickenpox, rubella, and measles, and are not uncommonly encountered in infectious mononucleosis and infectious hepatitis. Furthermore, all the viral and rickettsial diseases which have occasionally caused thrombocytopenia may lead to a hemorrhagic syndrome which might be so designated. The pathophysiology of the bleeding phenomena of the common infectious diseases of childhood and that of the hemorrhagic fevers are apparently in no way different: capillary changes and/or thrombocytopenia play a role in each. The diseases which have been called hemorrhagic fever per se, with appropriate geographic prefixes, have had, in general, a greater incidence of the hemorrhagic syndrome than is to be expected in the usual exanthemas of childhood; however, even in the classical Omsk hemorrhagic fever or in epidemic KHF bleeding phenomena are not invariable and are only encountered in a portion of the cases. The best clinical physiological studies have been made on HFRS and on dengue hemorrhagic fever syndromes; even in these it has not been possible to demonstrated direct cytopathological effect of the viruses on capillary endothelium or on platelet-producing cells. In both of these diseases the increased capillary fragility is accompanied by leakage of protein-rich fluid from the vascular bed which leads to an acute shock syndrome, and yet the direct action of the virus on any cell groups has not been shown to cause these phenomena. It would be better to designate the symptom complex described above as the hemorrhagic syndrome and to restrict the use of the term "virus hemorrhagic fever" to those virus deseases in which the hemorrhagic syndrome attains a high incidence: of these, the earliest-defined and most widespread is epidemic hemorrhagic fever itself, now grouped under the term, "hemorrhagic fever with renal syndrome", or, as we now propose (in order to encompass its nonnhemorrhagic form of low virulence), muroid virus nephropathy.

Transliteration

We have used a modified version of the U.S. Library of Congress transliteration system for citations in Russian wherever possible:

A A	К К	X	KH
Б В	ЛЬ	Ц	TS
B V	M M	4	CH
Γ G	H N	Ш	SH
Д D	0 O	Щ	SHCH
E E	ПР	Ъ	11
ËE	P R	Ы	Y
ж Z H	C S	Ь	1
∋ Z	T T	Э	E
ИΙ	УU	D	IU
ЙΙ	ФБ	Я	IA

Because so many systems are used in the scientific literature for romanizing Chinese, Japanese, and Korean characters, we were not always able to change citations into a consistent system when the original material was unavailable. When there was a choice, we preferred Pinyin for Chinese and Hepburn romanization for Japanese.

LIST OF SYNONYMS

English [Note: the spellings "hemorrhagic" and "haemorrhagic" alternate]

Acute endemic hemorrhagic fever

Acute epidemic hemorrhagic fever

Acute hemorrhagic tubulointerstitial nephritis

Bosnian hemorrhagic fever

Churilov disease

Endemic benign nephropathy

Endemic hemorrhagic fever

Endemic hemorrhagic nephroso-nephritis

Epidemic hemorrhagic disease

Epidemic hemorrhagic fever

Epidemic hemorrhagic fever with renal syndrome

Epidemic nephritis

Epidemic nephropathy

Epidemic nephroso-nephritis

Epizootic hemorrhagic disease

Far Eastern hemorrhagic fever

Hemorrhagic fever

Hemorrhagic fever with renal syndrome

Hemorrhagic nephroso-nephritis

Infectious hemorrhagic fever

Korean hemorrhagic fever

Muroid virus nephropathy

Nephropathia epidemica

Nephropathia epidemica Myhrman

Nephropathia epidemica Myhrman-Zetterholm

Nephroso-nephritis hemorrhagica

Rodent-borne viral nephropathy

Scandinavian epidemic nephropathy

Songo fever

Viral hemorrhagic fever

Viral nephritis

Virus hemorrhagic fever

Russian

Bolezn' Churilova [Churilova Disease]

Dal'nevostochnaia gemorragicheskaia likhoradka [Far Eastern hemorrhagic fever]

Dal'nevostochnaia gemorragicheskaia likhoradka s pochechnym sindromom [Far Eastern hemorrhagic fever with renal syndrome]

Dal'nevostochnyi nefrozo-nefrit [Far Eastern nephroso-nephritis]

Endemicheskii gemorragicheskii nefrozo-nefrit [Endemic hemorrhagic nephroso-nephritis]

Endemicheskii nefrozo-nefrit [Endemic nephroso-nephritis]

Epidemicheskaia gemorragicheskaia likhoradka s pochechnym sindromom [Epidemic hemorrhagic fever with renal syndrome]

Epidemicheskii gemorragicheskii nefrozo-nefrit [Epidemic hemorrhagic nephroso-nephritis]

Gemorragicheskaia likhoradka s pochechnym sindromom [Hemorrhagic fever with renal syndrome]

Gemorragicheskii nefrozo-nefrit [Hemorrhagic nephroso-nephritis]

Infektsionnyi gemorragicheskii nefrozo-nefrit [Infectious hemorrhagic nephroso-nephritis]

Infektsionnyi nefrozo-nefrit [Infectious nephroso-nephritis]

Nefrozo-nefrit [Nephroso-nephritis]

Ostryi infektsionnyi nefrozo-nefrit [Acute infectious nephroso-nephritis]

Tul'skaia gemorragicheskaia likhoradka [Tula hemorrhagic fever]

Ural'skaia gemorragicheskaia likhoradka [Ural hemorrhagic fever]

Yaroslavskaia gemorragicheskaia likhoradka [Yaroslav hemorrhagic fever]

Japanese

[Endemic hemorrhagic fever]

[Epidemic nephritis]

[Erhtaokiang disease]

Febris haemorrhagica epidemica

Febris haemorrhagica infectioza

[Heiho fever]

[Kokuko fever]

[Kokko fever]

[Korin fever]

[Manchurian epidemic hemorrhagic fever]

[Nidoko disease]

[Nidoko fever]

Purpura haemorrhagic epidemica

Ryukosei shukketsu netsu [Epidemic hemorrhagic fever]

Songo netsu [Songo fever]

[Sunwu fever]

[Tayinshan disease]

Bulgarian

Endemichniia nefrit [Endemic nephritis]

Hemoragichen nefrozo-nefrit [Hemorrhagic nephroso-nephritis]

Hemaragichnaia nefrozo-nefrita [Hemorrhagic nephroso-nephritis]

Hemoragichnaia treska s bobrechen sindrom [Hemorrhagic fever with renal syndrome]

Hemoragicniga nefrozo-nefrit [Hemorrhagic nephroso-nephritis]

Heomoragicnij nefrozo-nefrit [Hemorrhagic nephroso-nephritis]

Infektsionnykh nefrozok-nefritakh [Infectious nephroso-nephritis]

Khemoragichni treski [Hemorrhagic fever]

Virusnite khemoragichni treski [Viral hemorrhagic fever]

Chinese

Liu xing xing chu xue re [Epidemic hemorrhagic fever]

Czechoslovakian

Hemoragická nefroso-nefritis [Hemorrhagic nephroso-nephritis]

Hemoragická nefrozo-nefritida [Hemorrhagic nephroso-nephritis]

Hemoragické nefroso-nefritidy [Hemorrhagic nephroso-nephritis]

Hemoragické horúcky s renálnym syndromom [Hemorrhagic fever with renal syndrome]

Hemorhagické horecky [Hemorrhagic fever]

Vojnová nefritis [War nephritis]

Danish

Atypisk akut nephritis [Atypical acute nephritis]

Nephritis

Nephropathia epidemica

Nephropathia epidemica Myhrman

Dutch

Oorlogs-nephritis [War nephritis]

Finnish

[Acute nephritis]
Epideemin nefropatia [Epidemic nephropathy]
Epidemisk nefropatia [Epidemic nephropathy]
Fältfeber
[Fennoscandinavian rodent fever]
Myyräkuume [Vole fever]
Nephropathia epidemica
Nephropathia epidemica Myhrman

French

La fièvre hémorragique épidémique [Epidemic hemorrhagic fever] La fièvre hémorragique à syndrome rénal [Hemorrhagic fever with renal syndrome]

German

Akute hämorrhagische Nephroso-Nephritis [Acute hemorrhagic nephroso-nephritis]

Akuter Nephrose [Acute nephrosis]

Epidemisches hämorrhagisches Fieber [Epidemic hemorrhagic fever]

Hämorrhagischen Fieber [The hemorrhagic fevers]

Epidemisches hämorrhagisches Fieber mit renalem Syndrom [Epidemic hemorrhagic fever with renal syndrome]

Febris haemorrhagica

Hämorrhagisches epidemisches Fieber [Hemorrhagic epidemic fever]

Hämorrhagisches Fieber mit renalem Syndrom [Hemorrhagic fever with renal syndrome]

Hämorrhagische Nefrozo-Nephritis [Hemorrhagic nefroso-nephritis]

Nephroso-nephritis

Schlamfieberähnliche Krankheit [Swamp fever-like illness]

Hungarian

Endémiás nephropathia [Endemic nephropathy]

Haemorrhagiás laz [Hemorrhagic fever]

Haemorrhagiás nephroso-nephritis [Hemorrhagic nephroso-nephritis]

[Hemorrhagic fever with renal syndrome]

[Hemorrhagic nephroso-nephritis]

Haemorrhagiás lás járványtana [Hemorrhagic fever with renal syndrome]

Nephroso-nephritis

Nephroso-nephritis haemorrhagica [Hemorrhagic nephroso-nephritis]

Nephroso-nephritis haemorrhagica infectiosa [Infectious hemorrhagic nephroso-nephritis]

Sporadicus nephroso-nephritis haemorrhagica infectiosa [Sporadic infectious hemorrhagic nephroso-nephritis]

Italian

Febbre epidemica emorragica [Epidemic hemorrhagic fever] Febbre emorragica epidemica [Epidemic hemorrhagic fever]

Korean

[Endemic hemorrhagic fever]
Han-Kook-Hyung Chool-Heul-Leul [Korean hemorrhagic fever]
[Hantaan virus fever]
[Korean epidemic hemorrhagic fever]
Yu-Hang-Sung Chool-Heul-Leul [Epidemic hemorrhagic fever]

Norwegian

Nephropathia epidemica

Polish

Nephroso-nephritis haemorrhagica

Rumanian

Endemias nephropathia [Endemic nephropathy] Endemske nefropatije [Endemic nephropathy] [Epidemic nephropathy] Nephropathia epidemica Nefropathia epidemica Myhrman

Serbo-Croatian

[Chronic endemic nephropathy]
Endemskaja nefropatija [Endemic nephropathy]
Epidemijska hemoragijska groznica [Epidemic hemorrhagic fever]
Epidemiska hemoragicna groznica [Epidemic hemorrhagic fever]
Epidemiska hemoragicna groznica s renalnim sindromom (Epidemic hemorrhagic fever with renal syndrom)
Hemoragichen nefrozonefrit [Hemorrhagic nephroso-nephritis]
Hemoragicka groznica [Hemorrhagic fever]
Hemoragicna groznica [Hemorrhagic fever]
Hemoragicna groznica s renalnim sindromom [Hemorrhagic fever with renal syndrome]
Hemoragicka vrucica s renalnim sindromom [Hemorrhagic virus with renal syndrome]
[Yugoslavian nephritis]

Spanish

Fiebre hemorragica [Hemorrhagic fever] O mal de los rastrojos Viroses hemorragica [Hemorrhagic virus]

Swedish

Akuta nefriter [Acute nephritis]
[Endemic benign nephropathy]
[Epidemic nephritis]
[Epidemic nephropathy]
Epidemic nephropathy]
Epidemisk nephrit
Febris epidemica haemorrhagica
Kryptogena akuta nefriter [Cryptogenic acute nephritis]
Nephropathia endemica
Nephropathia epidemica
Nephropathia epidemica Myhrman
Njurjukdom [Renal disease]

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BIBLIOGRAPHY OF HEMORRHAGIC FEVER WITH RENAL SYNDROME

ABDURASHITOV, R.F.

- 1968 Klinicheskaia kharakteristika gemorragicheskoi likhoradki s pochechnym sindromom v
 Bashkirskoi ASSR [Clinical characteristics of HFRS in the Bashkir ASSR]. In: "Kleshchevoi
 entsefalit i gemorragicheskaia likhoradka s pochechnym sindromom v Evropeiskoi chasti SSSR.
 Tezisy konferentsii" [Abstracts of a conference on tick-borne encephalitis and hemorrhagic fever
 with renal syndrome in the European USSR]. Izhevsk, pp. 3-5.
- Sostoianie adgezii, agregatsii i soderzhanie trombotsitov v perifericheskoi krovi u bol'nykh gemorragicheskoi likhoradkoi s pochechnym sindromom [Adhesion, agglutination, and thrombocyte count in peripheral blood of HFRS patients]. In: "Gemorragicheskaia likhoradka s pochechnym sindromom [Hemorrhaghic fever with renal syndrome]." Khabarovsk, pp. 59-63.
- 1974 Soderzhanie i dinamika mikroelementov medi, margantsa, obshchego belka i belkovykh fraktsii v krovi bol'nykh gemorragicheskoi likhoradkoi s pochechnym sindromom [Concentration and dynamics of copper, manganese, total protein and protein fractions in the blood of HFRS patients]. In: "Gemorragicheskaia likhoradka s pochechnym sindromom [Hemorrhagic fever with renal syndrome]." Khabarovsk, pp. 70-73.
- 1975 Sravnitel'naia tsennost' nekotorykh funktsional'nykh prob pecheni i pokazatelei svertyvaiushchei i fibrinoliticheskoi sistem krovi pri gemorragicheskoi likhoradke s pochechnym sindromom [Comparative values of some liver function tests and indices of coagulational and fibrinolytic blood systems in HFRS]. In: "Materialy Izucheniia Kleshchevogo Entsefalita i Gemorragicheskoi Likhoradki s Pochechnym Sindromom na Srednem Povolz'e [Data on the Study of Tick-borne Encephalitis and Hemorrhagic Fever with Renal Syndrome in the Middle Volga Region]." Kazan', pp. 110-116.
- 1977 Klinicheskoe znachenie urokinaznoi i antikoaguliantnoi aktivnosti mochi u bol'nykh gemorragicheskoi likhoradkoi s pochechnym sindromom [Clinical significance of urokinase and anticoagulant activity of urine in patients suffering from hemorrhagic fever with renal syndrome]. Urologiia i Nefrologiia (Moskva) 42:3 (May-June), 10-12.
- Ob uchastii sistemy prokoaguliantov v svertyvanii krovi pri gemorragicheskoi likhoradke s pochechnym sindromom [Role of the procoagulant system in blood coagulation in hemorrhagic fever with renal syndrome]. Klinicheskaia Meditsina (Moskva) 56:8 (August), 44-48.
- [Use of acetylsalicylic acid in the overall therapy of the severe form of hemorrhagic fever with renal syndrome]. Klinicheskaia Meditsina (Moskva) 59:5 (May), 53-57.

ABDURASHITOV, R.F., BUNIN, K.V., and MUKHAMETRAKHIMOVA, R.F.

Atsetilsalitsilovaia kislota kak sredstvo lecheniia bol'nykh gemorragicheskoi likhoradkoi s pochechnym sindromom [Acetylsalicylic acid as a treatment for HFRS patients]. Sovetskaia Meditsina (Moskva) 44:3 (March), 118-119.

ABRIKOSOV, A.I.

1950 Gemorragicheskii nefrozo-nefrit [Hemorrhagic nephroso-nephritis]. In: "Osnovy Chastnoi Patologicheskoi Anatomii," [Fourth edition]. Moskva, p. 420.

ADAMOVICH, V.L., BALAISHITS, E.N., and STRUTINSKII, V.N.

O vozmozhnosti sushchestvovaniia ochagov kleshchevogo entsefalita i gemorragicheskoi likhoradki s pochechnym sindromom na territorii Brianskoi oblasti [Probable existence of tickborne encephalitis and hemorrhagic fever with renal syndrome foci in Briansk Oblast]. In: Kleshchevoi Entsefalit i Gemorragicheskaia Likhoradka s Pochechnym Sindromom v Evropeiskoi Chasti RSFSR. Materialy Mezhoblastnoi Nauchno-prakticheskoi Konferentsii (Izhevsk), 8-9.

AFANAS'EVA, V.A., and ASEEVA, L.O.

Tri sluchaia gemorragicheskogo nefrozo-nefrita u detei v Riazanskoi oblasti [Three cases of hemorrhagic nephroso-nephritis in children in Riazan Oblast]. Pediatriia (Moskva), No. 4 (April), 87.

- AGAFONOV, V.I., KAMALETDINOVA, Z.V., OVECHKINA, V.A., TRIFONOV, A.V., SAFIN, M.S., and KONOVA, N.V.
- 1976 Taktika organizatsii profilakticheskikh meropriiatii v ochagakh gemorragicheskoi likhoradki s pochechnym sindromom goroda Izhevska [Tactics for prophylactic management in foci of HFRS in Izhevsk City]. In: "Prirodnoochagovye Antropozoonozy. Tezisy Dokladov Vsesoiuznoi Konferentsii Po Prirodnoi Ochagovosti Boleznei Cheloveka i Zhivotnykh (18-21 May) [Natural Focal Anthropozoonoses. Abstracts of the Ninth All-Union Conference on Natural Focal Diseases of Man]." Omsk, pp. 124-125.
- AGAFONOV, V.I., LEV, M.I., NOSKOV, F.S., KONIKOVA, R.E., ELIGULASHVILI, R.K., GAVRILIUK, B.K., KULIKOV, I.A., EFIMOV, L.S., SERGEICHIK, I.I., and BELIAEVA, N.S.
- 1971 K etiologicheskoi rasshifrovke vspyshki gemorragicheskoi likhoradki s pochechnym sindromom [Etiological interpretation of an outbreak of hemorrhagic fever with renal syndrome]. Voenno-Meditsinskii Zhurnal (Moskva) No. 9 (September), 46-49.
- AGAFONOV, V.I., LIASHENKO, N.I., and NOVIKOV, N.L.
- Epidemiologiia i profilaktika gemorragicheskoi likhoradki s pochechnym sindromom [Epidemiology and prevention of hemorrhagic fever with renal syndrome]. Voenno-Meditsinskii Zhurnal (Moskva) No. 1 (January), 36-40.
- AGAFONOV, V.I., OVECHKINA, V.A., KAMALETDINOVA, Z.V., TRIFONOV, A.V., and SAFIN, M.S.
- Opyt pasportizatsii prirodnykh ochagov gemorragicheskoi likhoradki s pochechnym sindromom v prigorodnoi zone goroda Izhevska [Experience with registration in hemorrhagic fever with renal syndrome natural foci in metropolitan Izhevsk]. In: Voprosy Meditsinskoi Virusologii. Tezisy Konferentsii (Moskva), 566-568.
- AGAFONOVA, V.I., TALANOV, M.A., SHIROKIKH, Kh.V., UGLITSKIKH, E.P., and VASIL'EVA, V.I.
- 1981 [Combined principle in organization of prophylaxis as a base for the decreased activity in HFRS foci]. In: ["Viruses and Viral Infections of Man." Conference Abstracts, May 19-21]. Institut Poliomielita i Virusnykh Entsefalitov, Akademiia Meditsinskikh Nauk SSSR, Moskva, pp. 254-255.
- AGAFONOVA, V.P., OZHEGOVA, Z.E., and KOZ'MINYKH, Iu.V.
- 1968 Epidemiologicheskie dannye o gemorragicheskoi likhoradke s pochechnym sindromom v Udmurtskoi ASSR [Epidemiologic data on hemorrhagic fever with renal syndrome in Udmurtsk ASSR]. In: Kleshchevoi Entsefalit i Gemorragicheskaia Likhoradka s Pochechnym Sindromom v Evropeiskoi Chasti RSFSR. Materialy Mezhoblastnoi Nauchno-prakticheskoi Konferentsii (Izhevsk), 6-7.

AGAFONOVA, S.Ia.

- O gemorragicheskom nefrozo-nefrite v Kuibyshevskoi oblasti [Hemorrhagic nephroso-nephritis in Kuibyshev Oblast]. In: "Avtoreteraty 6 Kuibyshevskoi Oblastnoi Nauchno-Prakticheskoi konferentsii [Abstracts of the Sixth Kuibyshev Regional Scientific-Practical Conference]." Kuibyshev, pp. 18-20.
- O rasprostranenii i osobennostiakh techeniia gemorragicheskogo nefrozo-nefrita v Kuibyshevskoi Oblasti [Spread and peculiarities of the course of hemorrhagic nephroso-nephritis in Kuibyshev Oblast]. In: Trudy Kuibyshevskogo Meditsinskogo Instituta, Kuibyshev, Vol. 20, pp. 191-194.
- AGAFONOVA, S.Ia., and ZAGREBINA, E.A.
- O sluchaiakh gemorragicheskogo nefrozo-nefrita [Cases of hemorrhagic nephroso-nephritis]. Sovetskaia Meditsina (Moskva) 21:12 (December), 83-86.

AGRANOVA, O.N., VERETA, L.A., and ZELENSKII, A.Iu.

Sluchai afebril'nogo techeniia gemorragicheskogo nefrozo-nefrita. [Cases of hemorrhagic nephroso-nephritis with afebrile course]. In: "Sbornik nauchykh rabot Khabarovskogo Instituta Epidemiologii i Gigieny," Vol. 3. Khabarovsk.

AHN, D.S., LEE, W.H., and YUM, K.S.

1973 Report on epidemic hemorrhagic fever occurred in the Chunbuk province. Korean Journal of Internal Medicine 16, 599.

AIZENSHTEIN, D.M.

1940 Klinika, patogenez i differentsial'naia diagnostika tak nazyvaemogo ostrogo infektsionnogo nefrozo-nefrita [Clinical features, pathogenesis and differential diagnosis of so-called acute infectious nephroso-nephritis]. In: Tezisy dokladov 1 armeiskoi nauchnoi konferentsii [Abstracts of the First Army Scientific Conference]. Khabarovsk, 47-50.

ALEKSANDROV, Iu.V.

- 1971 K voprosu o real'nosti transmissivnykh zarazhenii liudei gemorragicheskoi likhoradkoi s pochechnym sindromom [Reality of a vector transmission of hemorrhagic fever with renal syndrome to humans]. In: Virusnye Gemorragicheskie Likhoradki [Viral Hemorrhagic Fevers]. Trudy Instituta Poliomielita i Virusnykh Entsefalitov Akademii Meditsinskikh Nauk SSSR (Moskva), Vol. 19, 399-403.
- 1971 Nekotorye epidemiologicheskie osobennosti gemorragicheskoi likhoradki s pochechnym sindromom na poberezh'e Iaponskogo moria [Some epidemiological peculiarities of hemorrhagic fever with renal syndrome near the Sea of Japan coast]. In: Virusnye Gemorragicheskie Likhoradki [Viral Hemorrhagic Fevers]. Trudy Instituta Poliomielita i Virusnykh Entsefalitov Akademii Meditsinskikh Nauk SSSR (Moskva), Vol. 19, 389-393.

ALEKSANDROV, Iu.V., and IAGODINSKII, V.N.

1965 Primenenie sravnitel'nogo nozogeograficheskogo metoda dlia epidemiologicheskogo analiza gemorragicheskikh likhoradok s pochechnym sindromom [Use of the comparative nozogeographical method for epidemiological analysis of HFRS]. In: Aktual'nye Problemy Virusnykh Infectsii. Materialy XII Nauchnoi Sessii Instituta Poliomyelita i Virusnykh Entsefalitov, Akademiia Meditsinskikh Nauk SSSR (Moskva).

ALEKSANDROV, Iu.V., IAGODINSKII, V.N., and KHUDIAKOV, I.S.

- Geograficheskoe rasprostranenie prirodnoochagovykh infektsii na morskom poberezh'e iuzhnoi chasti Dal'nego Vostoka (v tom chisle gemorragicheskoi likhoradki s pochechnym sindromom) [Geographic distribution of infections with natural occurance in the southern Far East coast (including hemorrhagic fever with renal syndrome)]. In: Voprosy Geografii Dal'nego Vostoka. Sbornik 7. Preobrazovanie Prirody. Biogeografiia (Vladivostok), 331-352.
- O nekotorykh osobennostiakh epidemiologicheskogo proiavleniia ochagov gemorragicheskoi likhoradki s pochechnym sindromom iuzhnoi chasti sovetskogo poberezh'ia Iaponskogo moria [Some peculiarities of the HFRS epidemiology in the southern Soviet coast of the Japanese Sea]. In: Materialy 15 nauchnoi sessii Instituta Poliomielita i Virushykh Entsefalitov, Akademiia Meditsinskikh Nauk SSSR. Moskva, 3, pp. 105-107.

ALEKSANDROV, Iu.V., KHUDIAKOV, I.S., and IAGODINSKII, V.N.

Prirodnye osnovy sushchestvovaniia ochagov gemorragicheskoi likhoradki s pochechnym sindromom v iuzhnoi chasti sovetskogo poberezh'ia Iaponskogo moria [Natural basis for the existence of HFRS foci in southern Soviet coast of the Sea of Japan]. In: Materialy 15 nauchoi sessii, No. 3. Instituta Poliomielita i Virushykh Entsefalitov, Akademiia Meditsinskikh Nauk SSSR, Moskva, pp. 103-105.