CHF diagnosis. Zoological-parasitological investigations of this new CHF area confirmed the possible circulation of CHF virus in Myasnikovsky region.

The Sal'sk region of southern Rostov Oblast is 350–400 km from the center of the CHF focus. The southern boundary of Sal'sk region adjoins Krasnodar and Stavropol regions; its southeastern boundary is Kalmyk ASSR (Fig. 12). CHF was described in Krasnodar region in 1957 by Koval'sky and Ryvkina and in Stavropol region in 1956 and 1967 by Yarova.

In Sal'sk region, the 1st patient (P, 67 years old) was recorded in May 1969. The clinical picture of this patient resembled that of CHF. Blood samples taken on day 21 of disease showed CF and precipitating antibodies to CHF virus. Thus, the 1st CHF case was diagnosed in Sal'sk region.

Serological investigation methods enable detection of new, unknown disease foci in a certain locality.

In Luga Oblast, no CHF infection cases were recorded until 1969. However, existence of CHF in Luga Oblast is not excluded because its western boundary adjoins the CHF endemic areas of Rostov Oblast (Tarasovsky, Kamensky, Krasnyy Sulin, and Oktyabr'sky regions).

During the May–July 1969 epidemic season, we examined blood sera from febrile patients with clinical pictures resembling CHF. CF and precipitating antibodies to CHF virus were found in 2 of the 3 patients examined. Both patients were from rural area of Antratsit region. Positive serological results confirmed the assumption of existence of a CHF focus in Luga Oblast.

Serological investigation methods may be used to diagnose mild and modified forms of CHF infections and also for retrospective diagnosis. We examined serologically human population groups and persons who were exposed to possible CHF infection. Precipitating and CF antibodies were found in blood sera of 3 persons. The 1st (female laboratory worker N) of the Rostov Institute of Epidemiology, Microbiology, and Hygiene, had worked during the epidemic season in the Krasnyy Sulin Oblast CHF focus. The 2nd had spent summer holidays in the Ust'Donets region. In retrospect, it was established that these 2 persons had recovered from an acute febrile disease but owing to mild clinical course they did not request medical help.

CHF diagnosis was sometimes difficult in certain patients because of the presence of other diseases. Patient K (female) from Tatsinskovsky region and patient F from Ust' Donets region were hospitalized with a primary diagnosis of suspect CHF. However, the typical clincal picture of Botkin disease developed and forced clinicians to change the primary diagnosis. Investigations of these patients' blood sera revealed CF and precipitating antibodies as well as neutralizing antibodies to CHF virus in patient K. It may be assumed that CHF in this patient was accompanied by other diseases.

CONCLUSIONS

1. Serological investigation methods (CF and DPRA) may be useful for determining the range of CHF distribution.

2. Serological investigation methods are the main link in diagnosing modified and typical forms of CHF infection and also for retrospective diagnosis.

Certain Questions of CHF Therapy

E. V. LESHCHINSKAYA AND I. N. MARTYNENKO

CHF therapy presents a particularly complicated problem in studying the infection. This is explained by the absence of sufficiently effective antiviral preparations and insufficiency of our data on CHF pathogenesis, which are very important for determining symptomatic drugs. It is also indispensable to try to substantiate the therapy from available data on development of the disease.

Viremia is a leading factor in development of the CHF pathologic process. Recent investigations by Butenko and Vasilenko show that the agent circulates in blood for quite a long period. The virus can be regularly isolated from blood up to day 7 following onset of infection. Thus, it is justifiable to use virus neutralizing preparations such as convalescent sera and plasma and specific gammaglobulin. Among these preparations, we have only convalescent sera. These sera were used intramuscularly during different infection periods (up to day 4 following onset of infection) in 1 or 2 doses of 60.0–80.0 (sic). Unfortuately, analysis of clinical observations showed the absence of sufficient effectiveness of these preparations in these doses. Table 61 shows no essential differences in the serum-treated and control groups in duration of the febrile period, fatality, and number of cases lacking the hemorrhagic syndrome.

These clinical data were confirmed by isolating CHF virus from blood of certain patients 2 or 3 days after innoculating convalescent serum (Butenko). Unsuccessful serotherapy may be explained by the low antibody titer in the preparation, insufficient quantity of the preparation, and poor absorption due to development of massive hematomas from intramuscular administration. Thus, only titrated serum series with a known antibody level should be used in the future. The quantity of inoculated serum should