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Lack of Food Supply and Health Provision and Kidney Diseases among the Soldiers of the Royal Hungarian Army in 1942-43

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Abstract: Explorers and members of the armed forces frequently have to make expeditions in to unknown and hostile country, where the opportunities for obtaining food are either limited or altogether absent. In such circumstances the expedition has to take with it sufficient food for its members. The planning and provision of the rations may make all the differences between the success or failure of the expedition or military operation. In 1920-1942 the food supply and health provision was acceptable among the soldiers of the Royal Hungarian Army and no signs of kidney diseases and nephrotic syndrome could be seen. In August 1942 in Russia the temperature was plus 41°C and in 1943 January it was and 41°C. May be that this indetermination in the temperature and starvation and undernutrition, accompanied with lack of fluids resulted in the greater frequency of the occurrence of kidney diseases and not punctually registered nephrotic syndrome among the soldiers of the Royal Hungarian Army. In almost a year of the eastern front the 2nd Army lost 125,000 men and dead, wounded or captured, only 70,000 returned.

Key words: Diet, climate, world warII, Royal Hungarian Army, kidney diseases, nephrotic syndrome

Introduction

The Kingdom of Hungary had no king, refusing to allow Otto von Habsburg to reclaim his legacy. Admiral Nicholas Horthy, former commander of the Austro-Hungarian Navy, instead served as regent. Horthy sent Hungarian troops into the Soviet Union in 1941 to support the German invasion and dispatched the Second Hungarian Army to the front in late 1942. Hungary's military participation in World War II started on a greater scale in 1942, when the 2nd Hungarian Army joined German forces in the campaign against the Soviet Union. With 207, 000 troops and nearly a half of the total available weapons and equipment, the Hungarian high command ordered their most well-equipped army at the time to the eastern front in the spring of 1942 (Niehorster, 1998). As the new Hungarian army was being moved to the front the Germans launched Operation Fall Blau on June 28, 1942. The Hungarian troops travelling to Kursk had to march several hundred kilometres on more than one occasion to reach the river Don. Hungarian troops took Staryi Oskol on July 4 and by July 7 the III Corps leading units had reached the Don River. The Hungarians had barely dug into positions behind the Don when the Soviet launched attacks across the river to establish bridgeheads at Uryv, Karotyak and Stutye (Király and Veszprémy, 2002; Ravasz, 2006). The Hungarians counter-attacked with the newly arrived 1st Armoured Field Division. They pushed the Soviets out of Uryv in to a small bend in the Don River to the north of the town. The Hungarian Armoured troops accounted for 21 T-34 during the 1st Battle of Uryv (July 27). Unfortunately the Hungarian attack had to be called off when ammunition supplies ran low, the Germans had yet to resupply them. A third attempt was made on the Uryv bridgehead on September 9 (Ravasz, 2006). This time the Germans took the role of organizing and planning the attack. After five days of heavy fighting the attack was broken off, both sides taking substantial casualties before it reached their gun positions. The Soviet attack was halted with the arrival of German reinforcements. By mid September 1942 the 2nd Hungarian Army had settled into defensive positions along the Don River.

Unfortunately a General lack defensive supplies like mines and barbed wire and a shortage of labour meant only the defensive areas immediately around the bridgeheads could be adequately fortified. Supply problems plagued the 2nd Army, with both home and the Germans reluctant to give too much to the Hungarian troops in the front line. The Germans seeing their allies as a secondary priority and the Hungarian Government keen to withhold equipment and supplies to build up the Home Defence Army (Cecil, 1974). The weather also played a role, armoured troops complained that their 38 (t) tanks needed time to warm-up in cold weather and that if stationed to close the front lines any break-through couldn't be stopped if the tanks weren't up and running in time (Ravasz, 2006). In August 1942 the temperature was plus 41°C and in 1943 January it was and 41°C. May be that this indetermination in the temperature and starvation and undernutrition, accompanied with lack of fluids resulted in the greater frequency of the occurrence of kidney diseases and not punctually registered nephrotic syndrome among the soldiers of the Royal Hungarian Army (Personnel experience of Pfannl T; Revai, 2007) (Fig. 1-3)*

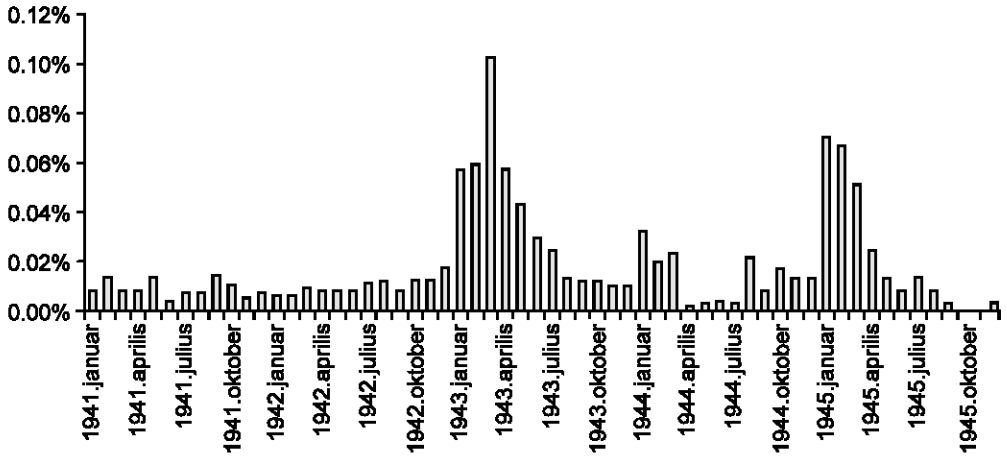

Fig. 1: Incidence of kidney diseases in the ratio of the number of the soldiers of the Royal Hungarian Army between 1941 és 1945

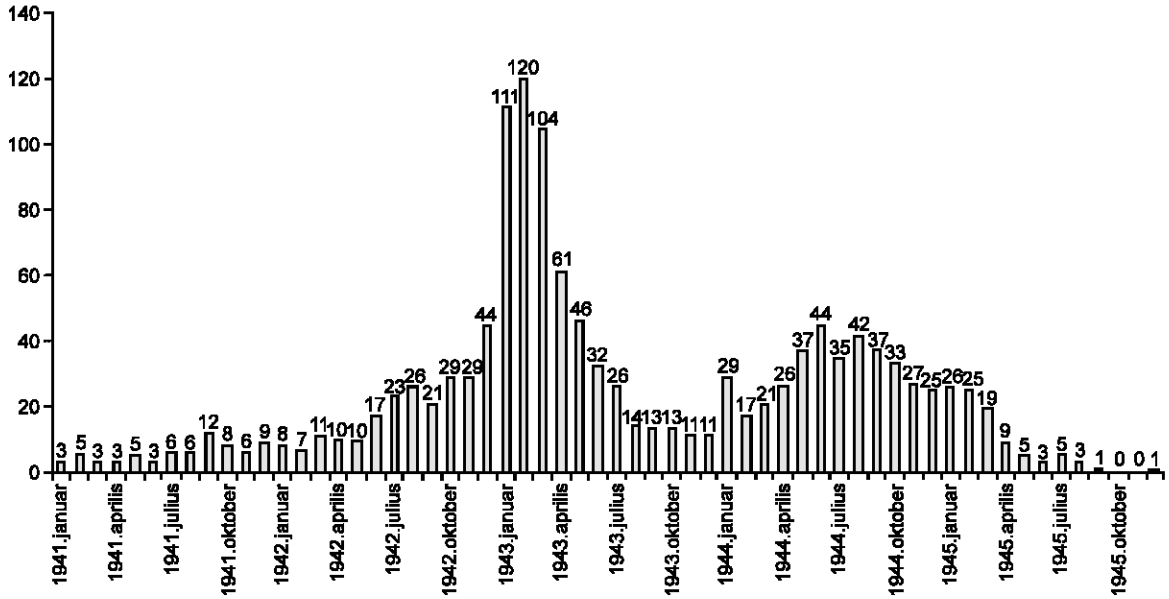

Fig. 2: Incidence of kidney diseases in the Royal Hungarian Army between 1941 and 1945

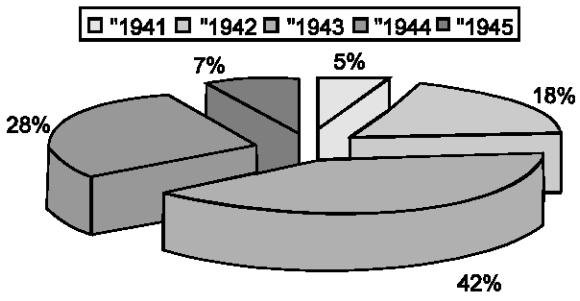

Fig. 3: Annual distribution of kidney patients 1941-1945

What are diet recommendations for the soldiers in different climates?: Members of expeditions are usually active young men. Their requirements for nutrients when on the expedition will be essentially the same as the daily allowances appropriate for men of their class. The practical point is the assessment of probable physical activity and the consequent need for calories (Davidson and Passmore, 1963). Climbers usually expend between 400 and 600 Cal./hr. with surprisingly little variation (Pugh, 1958). Similar hourly rates of energy expenditure have been found in sledging parties (Davidson and Passmore, 1963; Masterton *et al.*, 1957). The calorie cost of many other strenuous physical

activities is given in a review (Passmore and Durnin, 1955). The organizers of any expedition have clear responsibility of estimating the probable daily energy expenditure of the members when in the field and providing rations with the necessary calories. It is important to see that all members of an expedition have been well fed before the expedition sets out (Davidson and Passmore, 1963).

Soldiers of the Royal Hungarian Army ate only potato and carrots in Russia in 1943 (Personnel experience of Toth, 1942-1943; Personnel experience of Pfannl, 1942-1943.

The size of the sufficient stores of the nutrients varies. Even a very short period of undernutrition may reduce significantly a man's ability to carry out a hard and difficult task. This particularly applies to deprivation of calories (Davidson and Passmore, 1963).

Further, there is no evidence that any period of previous training will prevent such physiological deterioration. In particular no previous training can prevent the dehydration and consequent deterioration that follow rapidly upon a reduction in the fluid intake below the physiological losses (Davidson and Passmore, 1963).

It is impossible to train oneself to do without water. Nevertheless, in some circumstances it may be a valuable experience for members of an expedition to live for a few days on an inadequate diet and with a reduced fluid intake, for it will provide an opportunity for the men to feel the adverse effects on themselves of such deprivations. This experience may enable them to adjust their plans sensibly in a crisis. The importance of an adequate water supply for expeditions cannot be over stressed (Davidson and Passmore, 1963).

After assessing the physiological needs for nutrients, the organizers of an expedition have to translate these into terms of food and then to arrange for the supply of the food.

"It is always a wise precaution to see that members of an expedition have the necessary equipment for fishing, shooting or trapping and the skill to use them in an emergency" (Davidson and Passmore, 1963).

In most expeditions the major portion of the food has to be carried with the party.

It is clearly important to reduce the load to be carried -no matter whether the means of transport are aeroplanes, tracks, pack animals, or members of the expedition. Modern food technology has contributed enormously to this problem.

Meat, fruit and vegetables can be prepared so that only the edible portions are packed and no waste is carried (Davidson and Passmore, 1963).

Great improvements have been made in the quality of dehydrated foods. Packing materials and methods have also improved, so that packages can be made which will stand up without damage to rough handling and which endure long storage in any climate without deterioration of the contents (Davidson and Passmore, 1963). In these ways it has been possible to reduce the weight of stores.

It is also important to arrange the packing so that the food can be easily distributed and, if necessary, divided up into smaller units for small parties (Davidson and Passmore, 1963).

Conclusion: The Hungarian troops engaged had been smashed by continuous and un-relenting Soviet attacks. The commander of the German 429 IR wrote in his report: "the Hungarian troops had fought very well and that the cause for the failure of the attempt lay with the helplessness of the Hungarian units against enemy armour and the freezing weather." The Gap in the Hungarian lines had widened to 10km wide and 12km deep!

The food must be provided in a form so that meals can be prepared with a minimum of cooking and served as attractively as possible. As many members of an expedition as possible should have some training in cookery. The armed forces of several countries have expended much effort in devising rations suitable for small parties of varying size and also individual rations. The experience gained in the last years has revolutionized the diet provided for the soldier during active operations.

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References

Cecil, D. Eby, 1974. Hungary At War: Civilians and Soldiers in World War II (Hardcover) Chronology of the Second World war (Royal Institute of International Affairs, London-New york, 1947).

Davidson, S. and R. Passmore, 1963. Human nutrition and dietetics E and S. Livingstone LTD. Edinburgh and London 1963, Second Edition, 1963, Chap., 60: 815-820.

Király, B. and L. Veszprémy, 2002. A millennium of Hungarian military history. Publisher: Boulder, Colo.: Social Science Monographs; Highland Lakes, N.J. Atlantic Research and Publications; New York: Distributed by Columbia University Press.

Masterson, T.P, H.E. Lewis and E.M. Widdowson, 1957. Food intakes, energy expenditures and faecal excretions of men on a polar expedition. Br. J. Nutr., 11: 346-58.

Niehorster, Leo, W.G., 1998. The Royal Hungarian Army, 1920-1945. Bayside, NY: Axis Europa Books.

Passmore, R., J.V. Durnin, 1955. Human Energy Expenditure. Physiol. Rev., 35: 801- 40.

Personnel experience of Toth K., hussar of the 2nd Royal Hungarian Army, 1942.X-1943.IV;

Personnel experience of Pfannl T, survey of oficer of the III. Army Corps of the 2nd Royal Hungarian Army, 1942. VI- 1943. VIII).

Pugh, L.G., 1958. Muscular Exercise on Mount Everest. J . Physiol., 41: 233- 61.

Ravasz, I., 2006. Hungary and the Royal Hungarian„ Honved" Army in The World War of the 20th century. Publisher Puedlo. 106-11, Budapest.

Revai, T., 2007. Famine and Infection in War-Time. Pak. J. Nutr., 6: 516-517.

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