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上海扶輪人營養學家--侯祥川醫學博士

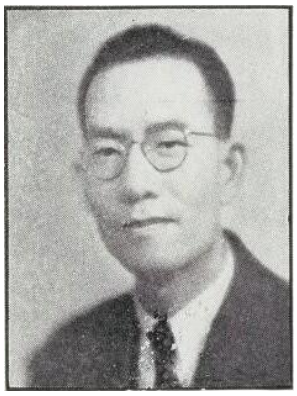
中國生理學會、中國生化學會創始人之一

Shanghai Rotarian Dr. Hou Hsiang-Chuan, M.D.

Co-Founder of the Chinese Physiological Society / Chinese Biochemical Society

By Herbert K. Lau (劉敬恒) (Rotary China Historian)

15 April 2016



1937 – Rotarian Dr. Hou Hsiang-Chuan, M.D.

Dr. Hou Hsiang-Chuan (侯祥川醫學博士), MD (*New York State*), MSc (*McGill*) (1899-1982), joined the Rotary Club of Shanghai (上海扶輪社) as an "Additional Active Member" on 29 June 1937 with the classification "Medicine--Medical Research" when he served as biochemistry & nutrition researcher in Henry Lester Institute of Medical Research, Shanghai.

That was the months of The Battle of Shanghai (淞滬會戰) which was a major battle fought between the Japanese Empire and the Republic of China (中華民國) in the Chinese city of Shanghai during the Second Sino-Japanese War. It lasted from 13 August to 26 November 1937, and was arguably the single largest and longest battle of the entire war, with it even regarded by some historians as the first battle of World War II. It resulted in the Imperial Japan's capture of the city and heavy destruction to the city. Being a Rotarian of medical doctor, Hou put himself thoroughly into the medical relief service to the war refugees. He fully exemplified his Vocational Service until the Club was disbanded in 1951.

Medical Aid to the War Refugees

At the end of 1937, there were 400,000 destitute homeless people to be housed and fed in refugee camps and in the Nantao Safety Zone (南市難民區). The normal population of the French Concession (上海法租界) was about 450,000 people; at one time during the last four months of 1937, the official estimate was 1,500,000. For a time the International Settlement (上海公共租界) was over-crowed by nearly a million and a quarter persons above its normal population, which was just over one million. Most of those who flooded these refugees in search of safety were penniless; many who already lived within them had lost their means of livelihood--- all of which helped swell the relief problem to overwhelming proportions.

The Rotary Club of Shanghai tried to do its part in solving that huge problem, as gave all social, religious, and philanthropic groups, and Rotary had no reason to be other than proud of what had been done and what had been contributed in its name. When the crisis came, our Rotary Club took a jolt. Funds from Club's reserves were instantly voted; the Board strengthened the Charity Committee and created a special Committee to handle relief funds. Working liaisons with practically every important medical and relief body—The International Red Cross, The Salvation Army, etc.---were established. An emergency hospital was financed almost wholly by the Rotary Club. Sums were voted to approve groups working "in the field". Special appeals and collections were made by members and among their friends. A mobile clinic and dispensary was built, equipped, and staffed. At Christmas time a special treat and small gifts were given to over 2,700 children in some of the refugee camps. The "Rotary Mobile Clinic & Dispensary" (扶輪社診病車) was merely a small part of the Club's action played to "Aids for Civilian Refugees in China".

Shanghai Rotary Club, in its Club Bulletin《*The Pagoda*》Issue 7 July 1938, reported the Rotary Mobile Clinic & Dispensary in action:

"By the end of June the Rotary Mobile Clinic and Dispensary has completed eight months of charitable medical work among the war refugees in Shanghai. It has by the 27th of June, 1938, made 21,209 treatments and transferred 304 patients to various hospitals for free treatments. During the first two months of its work, four refugee camps with a total population of approximately 2,500 were regularly visited in the mornings while in the afternoons the Mobile Clinic, in cooperation with the Shanghai Municipal Council Public Health Department attended to camps where medical attention was urgently needed. Thus most of 200-odd camps were visited by the Rotary van during this period.

During the next three months, six to eight refugee camps were assigned solely to the care of the Rotary Mobile Clinic, while answers to urgent call for medical aid to refugee camps were continued on certain days of the week. During this period there was a severe epidemic of measles and the Rotary van in cooperation with the Shanghai Municipal Council Public Health Department inoculated over 1,500 refugee children against measles in most of the refugee camps.

During the last three months, the work of the Mobile Clinic was concentrated to thirteen refugee camps solely under its care, the rest of the refugee camps being taken care of by other organizations. The 13 camps were situated 4 in the northern district (West Hongkew area), 4 in the central district (Honan Road, Tientsin Road), 5 in the western district (Singapore Road, Robinson Road, Penang Road, Sinza Road), and were so grouped that the camps in one locality were visited in the same forenoons or same afternoons, each camp at least four times weekly. At one time, 5 camps in the central district were taken care of by the Rotary van while during the last month a refugee camp situated at the west end of Great Western Road was transferred over to the care of the Rotary van.

Regarding personnel, it should be emphasized here that during the first four and a half months with the exception of the chauffeur all workers were on voluntary basis. With the departure of several voluntary workers for elsewhere, and the gradual withdrawal of several local voluntary workers, it was found necessary to employ a nurse and a part-time doctor to carry on the work further."

In December 1939, Shanghai Rotarian Doctor Hou Hsiang-Chuan, M.D., of Lester Chinese Hospital (仁濟醫院), Honorary Supervisor to the Rotary Mobile Clinic operation, reported to his Club:

"The Rotary Mobile Clinic, as you know, will have by the end of this month completed two years and two months of charitable medical work among the refugees of Shanghai. It has by the end of November 1939, diagnosed and treated 59,157 cases and transferred 544 seriously ill patients to hospitals for further treatments. The operating cost at the present moment is about $250, including gasoline but excluding medical and surgical supplies. It may be recalled here that during the first five months the operating cost to the Club was nothing but the salary of the chauffeur, which is $35 a month.

Subsequently, with the employment of a full-time nurse and a part-time doctor, the operating cost, including gasoline, was about $160 a month.

The Mobile Clinic has answered an urgent need during the emergency period and has since played a very important part in the relief of sufferings among the refugees of the city. As reported previously, a large number of camps were visited from time to time with a certain number regularly visited by the Clinic. It covered camps where medical attention was found by the Shanghai Municipal Council Public Health authority to be lacking and never duplicated any medical work in the camps. With the continuous shifting and regrouping of camps, it necessitated changes from time to time in the camps visited by the Mobile Clinic. Lately, with the reduction of refugees and grouping of many small camps into large camps, the Mobile Clinic was still kept busy in attending to the sick in a number of camps where medical attention was found to be lacking.

However, it is expected that by the end of this year there will be a further reduction in the number of refugees and camps, and there will remain a few (about ten) large camps where adequate medical attention will be established right in the camps. It is thought, therefore, that service like the Rotary Mobile Clinic's will not be so much needed as at the time it was started. The operating cost will be higher if the service is to be continued in view of the higher cost of gasoline, the necessity of increasing the pay to the doctor working at the Clinic, and the anticipated higher cost to maintain the car in a working condition. It is felt, therefore, that the service of the Rotary Mobile Clinic and Dispensary may by the end of December be discontinued."

After the outbreak of the Pacific War in December 1941, the Imperial Japanese Forces captured the Shanghai International Settlement where the Shanghai Rotary Club was not favourable to survive but to be disbanded. And so there was no more Rotary Mobile Clinic and Dispensary services.

A sketch of Dr. Hou Hsiang-Chuan, the Nutritionist

Born : 13 December 1899 in Jieyang County, Kwangtung Province, Ch'ing Empire

Died : 17 April 1982 in Beijing, People's Republic of China

1924 Hou was graduated from the Peking Union Medical College, and was conferred a M.D. degree by New York State University, U.S.A.

1927-1928 Hou was sponsored by the Rockefeller Foundation scholarship, U.S.A., and went to Canada and the United States for advance studies and visits, and was conferred a M.Sc. degree by McGill University, Canada.

1928-1932 Hou served as Assistant Professor, Department of Physiology, and Associate Professor, Department of Pharmacology, in Peking Union Medical College.

1932-1948 Hou served as biochemistry & nutrition researcher in Henry Lester Institute of Medical Research, Shanghai.

1945-1948 Hou concurrently served as director of the Nutrition Institute, Central Health Laboratory, Nanking (*Nanjing*), Republic of China.

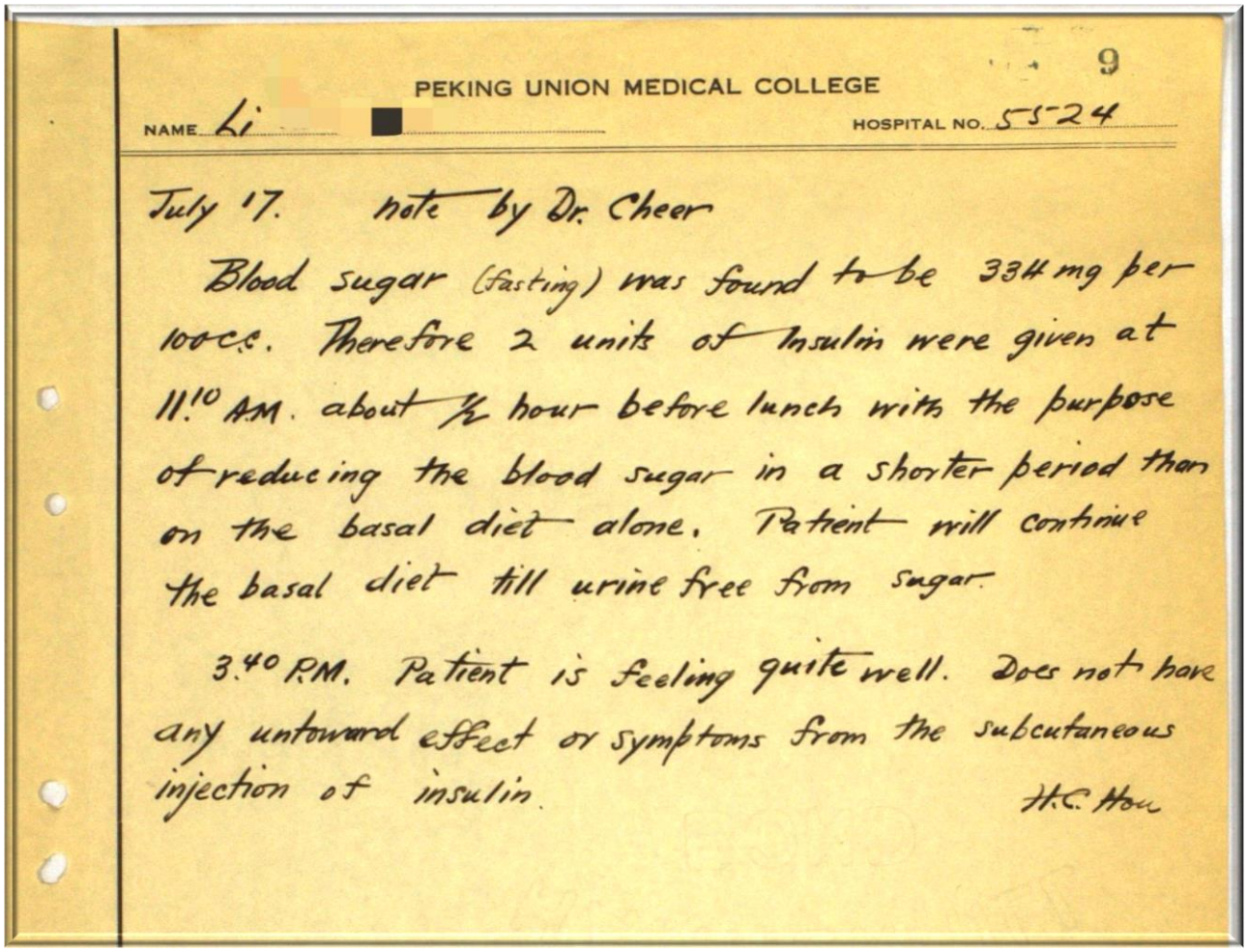
July 1946 Hou published his research report《A case of Vitamin K deficiency》on the Chinese Medical Journal. Read the full text on Pages 5-8.

1948-1949 Hou went to United States for further study, and then served as special researcher at the University of Wisconsin.

1949-1948 Hou served as professor of the People's Liberation Army No. 2 Military Medical University, and concurrently director of the Biochemistry Research Center, deputy head of the Training Department, and head of the Research Department of the same university, the People's Republic of China.

1958-1982 Hou served as researcher of the Military Health Research Center, and director of Rations Nutrition Research Office, as well as Military Health Research Consultant at Military Health Research Institute, Military Medical Science Academy of The People's Liberation Army.

1961 Hou was conferred the rank of Colonel by the Ministry of Defense, the People's Republic of China.



PEKING UNION MEDICAL COLLEGE

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NAME Li [redacted] HOSPITAL NO. 55-24

July 17. note by Dr. Cheer

Blood sugar (fasting) was found to be 334 mg per 100 c.c. Therefore 2 units of Insulin were given at 11.10 A.M. about ½ hour before lunch with the purpose of reducing the blood sugar in a shorter period than on the basal diet alone. Patient will continue the basal diet till urine free from sugar.

3.40 P.M. Patient is feeling quite well. Does not have any untoward effect or symptoms from the subcutaneous injection of insulin.

H.C. Hou

侯祥川醫師簽署北京協和醫學院醫院患者病程記錄

Peking Union Medical College Hospital patient progress notes signed by Dr. H. C. Hou

Chinese Medical Journal, **64**, *225-228, (July-Aug.) 1946.*

CASE REPORTS

A CASE OF VITAMIN K DEFICIENCY

HSIANG CHUAN HOU, (侯祥川) M.D., M.Sc.

Henry Lester Institute of Medical Research, Shanghai, China.

Vitamin K deficiency leading to hemorrhagic conditions in the newborn and in adults suffering from inadequate intake, obstructive jaundice, liver damage and intestinal disturbance is well known. (1-5) In these cases there is a hypoprothrombinemia which is readily corrected through the administration of vitamin K and bile salts and the hemorrhages are stopped. The present case is reported because of the unusual appearance and distribution of the lesion of a child brought to the clinic and the fact that he was already 7 months old and that there was no sign of jaundice nor visible bleeding from the mouth or intestine. The following is the history.

CASE REPORT

T. S. N. No. 2098, aged 7 months, male, was brought to the Lester Chinese Hospital with swellings in the face, body and legs and inability to suck the breast properly. The swellings were first noticed at the face, about 2 weeks before admission. A week later swellings were also seen in the body below the nipples and later the thighs. The swellings in the cheeks gradually became larger until they were about the size of a large walnut when the child was unable to suck and this inability brought the child to the hospital.

The child was a para i and was apparently normal at birth while the delivery was spontaneous and uneventful. He was breast fed from birth up to the time of admission. Two months before admission the patient had an attack of measles which lasted about a month, soon after recovery the patient developed diarrhea, 4-5 movements daily with some mucus but no blood.

On admission the patient was found to be moderately emaciated and weak, showing large swellings over the temple regions, both cheeks, over the sternum just below the nipple, over the abdomen in the right upper quadrant extending to the costal margin and in the external aspect of the right thigh. Two small swellings were seen in the forehead just above the eyes. The swellings were hard in consistency and in the swellings of the cheeks and

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* Associate, Henry Lester Institute of Medical Research, Shanghai.

Received for publication, Aug. 4, 1946.

abdomen, somewhat bluish gray in places (see figures 1 and 2). There was no redness, or heat but possibly some tenderness. The liver was just palpable below the costal margin. Physical examination otherwise revealed essentially normal findings. The spleen was not palpable, heart sounds were clear and distinct, abdomen was soft and showed no tumor. Knee jerks were just illicited. There was no jaundice.

Laboratory examination showed R.B.C. 2,800,000, Hb. 56% W.B.C. 6,500 with a differential count of 59% polymorphonuclears, 35% lymphocytes, 2% eosinophiles and 4% large mononuclears. Blood Wassermann and Kahn tests were negative. Urine and stool showed nothing abnormal but the stool was faintly positive for occult blood and the urine showed presence of bile pigments.

Blood prothrombin time done according to Quick's technique was found to be 38 seconds, being definitely prolonged (normal time 20-22 seconds). The blood coagulation time was 6 minutes and the bleeding time was 3 minutes.

A synthetic vitamin K preparation in the form of 2-methyl,-1,4-naphthohydroquinone-sodium sulfonate was given intravenously in doses equivalent to 1 mg. of 2-methyl-1,4-naphthoquinone. This was repeated in the second and third day by intramuscular injections. The blood coagulation time, bleeding time and the prothrombin time was found to return to normal on the third day. Milk, vegetable soup and glucose water were fed by glass dropper at frequent intervals. On the third day the child was able to suck again. Eggs, beef soup and rice water were gradually added to the breast feeding. The diarrhea gradually stopped one week after admission. The liver remained palpable. From the middle of the second week the swellings showed a reduction in size and after the third week they practically all disappeared (see figures 3 and 4). The liver then became barely palpable.

COMMENT

The present case is interesting in the first place for the unusual sites of subcutaneous hemorrhages presenting the appearance of multiple tumors all over the body. No gross sign of bleeding in the mucous membrance of the mouth but possible slight oozing of blood in the intestine (faintly positive benzidine test of stool). Capon (6) in 1937 reported that in the hemorrhages of infants melena alone was the most common form of hemorrhage, next melena plus hematemesis, melena plus epistaxis and palatal bleeding, umbilical bleeding, umbilical and palatal bleeding, hematuria, epistaxis and umbilical bleeding and finally umbilical, vaginal, oral and vulval bleeding. In a series of 16 cases reviewed by Grossman (7) the order of frequency of source of bleeding is: 1 umbilical, 2 melena, 3 hematemesis, 4 nasal and oral, 5 petechia, 6 hemorrhages from circumcision and 7 petechia, hematemesis and melena. Large

hematoma in the muscular wall or in subcutaneous tissue as shown by the present case were not encountered in their series.

With regard to the factors responsible for hypoprothrombinemia Weir, Butt and Snell (8) summarize conditions involving the gastrointestinal tract which may bring about this state as an inadequate intake of food containing vitamin K, impairment of absorption owing to lack of bile in the intestine and owing to a deficient intestinal absorptive surface and hepatic injury. Starvation, impaired appetite, vomiting, diarrhea, discharge from intestinal fistulas, continued aspiration of gastric or intestinal content, diseases of the intestinal mucosa, short-circuiting of the intestine, biliary obstruction, external biliary fistula, diseases of the liver and operative procedures and complications are factors which may influence the concentration of prothrombin in the plasma. It is interesting to note that in the present case there had never been any sign of jaundice although the liver was somewhat enlarged and the urine showed the presence of bile. There was probably a mild degree of hepatitis but no marked sign of obstructive jaundice which is the usual cause of hypoprothrombinemia in adults. The diarrhea in the child appeared to have brought about a reduction in the absorption of vitamin K and the hepatitis further reduced the formation of prothrombin resulting in the development of hypoprothrombinemia and consequently the formation of hematoma in different parts of the body.

The selection of sites for the formation of hematoma is difficult to explain since there was no history of trauma of any kind. However the child might have accidentally inflicted some injury to those sites not noticed by the parents.

SUMMARY

A case of hypoprothrombinemia due to vitamin K deficiency showing hematoma with unusual distribution in different parts of the body, presenting the appearance of multiple subcutaneous tumors in a child is described. The cause of the vitamin K deficiency was probably due to the diarrhea following an attack of measles, while in addition a mild attack of hepatitis might have further reduced the formation of prothrombin.

Acknowledgment. The writer is indebted to Dr. S. M. Chung, of the Lester Chinese Hospital for referring this case for study and for carrying out the treatment.

REFERENCES

1. CLIFFORD, S. H. Hemorrhagic diseases of the newborn. *J. Pediat*, **14**: 333, 1939.
2. BUTT, H. R., SNELL, A. M. and OSTERBERG, A. E. The use of vitamin K and bile in the treatment of hemorrhagic diathesis in cases of jaundice. *Proc. Staff Meet, Mayo Clin.*, **13**: 14, 1938.
3. SCANLON, G. H., BRINKHAUS, K. M., WARNER, E. D., SMITH, H. P. and FLYNN, J. E. Plasma prothrombin and bleeding tendency with special reference to jaundiced patients and vitamin K therapy. *Jour. Am. Med. Assoc.*, **112**: 1898, 1939.
4. FRANK, H. A., HURWICK, A. and SELIGMAN, A. M. The treatment of hypoprothrombinemia with synthetic vitamin K. *New Eng. Med., Jour.*, **211**: 975, 1939.
5. RHOADS, J. E. and FLIEGELMAN, M. T. The use of 2-methyl.-1,4-napthoquinone in the treatment of prothrombin deficiency in patients. *Jour. Am. Med. Assoc.*, **114**: 400, 1940.
6. CAPON, N. B. Hemorrhagic disease of the newborn: A study of 61 cases. *Lancet* **i**: 431, 1937.
7. GROSSMAN, A. M. Vitamin K for the pediatrician. *Jour. Pediat.* **16**: 239, 1940.
8. WEIR, J. F., BUTT, H. R. and SNELL, A. M. Further observations on the clinical use of vitamin K. *Am. Jour. Digest. Dis* **7**: 485, 1940.

1934 年 -- 上海雷士德醫學研究院
1934 -- Henry Lester Institute of Medical Research, Shanghai

1937-1940 年--病患戰爭難民前往扶輪社診病車接受免費醫療。診病車由一輛救護車改裝而成，車頂加高，方便患者站立。最初由上海扶輪社的醫生操作，後來由一名難民醫生和一名護士操作。兩年多來，這輛診病車為 13 個難民營的難民提供服務。超過 59, 200 病例得到診斷和治療，超過 550 名患者被轉送至醫院接受進一步治療。

1937-1940 -- War refugee patients visiting the Rotary Mobile Clinic & Dispensary -- The Rotary Mobile Clinic was transformed from an ambulance with the top converted to higher ceiling of which might allow people standing inside. Manned first by Shanghai Rotarian doctors, later by a refugee doctor and nurse. In the two plus years that mobile clinic ministered to the population of 13 refugee camps. More than 59,200 cases had been diagnosed and treated, while more than 550 patients had been transferred to hospitals for further treatment.

上海扶輪人營養學家--侯祥川醫學博士

中國生理學會、中國生化學會創始人之一

1961 年--中國人民解放軍--軍事醫學科學院軍糧營養研究室主任侯祥川上校

侯祥川醫學博士(Dr. Hou Hsiang-Chuan, MD (*New York State*), MSc (*McGill*))（1899-1982），於 1937 年 6 月 29 日以「增額現職社員」(Additional Active Member)資格加入上海扶輪社(Shanghai Rotary Club)，職業分類「醫療業-醫學研究」。侯祥川任職於上海雷士德醫學研究院(Henry Lester Institute of Medical Research)，擔任生物化學和營養學研究員。當時，正值淞滬會戰爆發的幾個月。淞滬會戰是第二次中日戰爭期間，日本帝國與中華民國在中國上海展開的一場重大戰役。淞滬會戰從 1937 年 8 月 13 日持續到 11 月 26 日，可以說是整個抗日戰爭中規模最大、持續時間最長的一場戰役。一些歷史學家甚至認為，它是第二次世界大戰的第一場戰役。最終，日本帝國佔領了上海，戰火把整個城市嚴重破壞。侯祥川醫師是扶輪社員，他全心投入醫療救助事業，直到 1951 年扶輪社解散。

侯祥川為中國生理學會和中國生化學會創始人之一。曾任中華醫學會理事及上海分會會長、上海公共衛生學會會長；被美國實驗生物學和醫學學會、生化學會、營養學會及英國生物化學學會吸收為會員；並多次出席國際性專業學術會議。1948 年(民國 37 年)作為中華民國醫學代表團團長出席國際熱帶醫學及瘧疾大會，任大會營養組主席。

1977 年侯祥川上校被聯合國大學聘為「世界饑餓方案」顧問委員會委員。1980 年任國際營養科學聯合會營養供給量專家委員會委員。1981 年參加在天津召開的國際營養討論會和在美國召開的第十二屆國際營養學大會，並在中華人民共和國的食物和營養問題工作會議上作中心發言。

侯祥川畢生致力於生物化學、營養學的研究和教學工作，在全國、全軍和國際生物化學、營養學界享有崇高的聲譽。在食物營養成分、糧食、代食品及消化生理等方面研究成績卓著。尤其核黃素缺乏症的研究，受到科學界的高度重視。先後發表論文二百餘篇---專著有《食物中毒》、《飲食與營養》、《營養缺乏病綱要及圖譜》、《營養學進展》等。

生平略傳

侯祥川，1899 年 12 月 13 日生於大清國廣東省揭陽縣的一個信奉基督教的家庭。父親曾任揭陽縣新墟埠禮拜堂牧師，並先後任新墟埠小學、揭陽縣小學、汕頭市聿懷中學校長兼教員。侯祥川 1906 年入小學讀書，1914 年 8 月於聿懷中學畢業升入汕頭華英中學堂（相當於高中和大學預科），1917 年畢業。他在中學學習期間，因學習成績優秀，曾獲得學校和汕頭政府的獎勵。

侯祥川為家中長子，另有兩個弟弟和三個妹妹。侯家人口多，父親工資收入微薄，母親除料理家務外，還經常做些抽紗、繡花等手工勞動，以貼補家用。

受父親慈善救國思想的影響，侯祥川在少年時期就對災難深重的勞苦大眾，寄予深切的同情。他看到國家缺少醫藥人才，尤其是農村鄉鎮的窮人，有病得不到醫治，便決心學習醫藥學。1917 年 8 月他考入上海聖約翰大學(St. John's University, Shanghai)理學院醫預科。一年後，他又考入北京協和醫學院(Peking Union Medical College)，於 1924 年畢業並取得美國紐約州立大學(New York State University)醫學博士學位。在校期間，他學習刻苦，成績優異，生活儉樸。他靠獎學金以及為校方抄寫文書，向校內外籍教員推銷手工藝品的收入，解決學習和生活的費用。

1927 年 7 月，侯祥川獲得美國洛克菲勒基金會(Rockefeller Foundation)獎學金，當年 9 月出國到加拿大麥吉爾大學(McGill University)進修，1928 年 6 月，獲理學碩士學位。後轉入美國賓夕法尼亞大學（University of Pennsylvania）、美國海洋生物實驗室(Marine Biological Laboratory)、美國華盛頓大學(University of Washington)醫學院為臨時研究員。

1929 年初侯祥川回國，在北京協和醫學院藥理系從事教學和科研工作，1930 年 7 月晉升為副教授。1933 年轉入上海雷士德醫學研究院生理學系任生物化學營養學研究員，專門從事營養方面的研究。

1945 年至 1948 年，侯祥川兼任中華民國南京中央衛生實驗院營養研究所主任。在 1948-1949 年，應美國營養學會(American Society for Nutrition)及聯合國糧食及農業組織(Food and Agriculture Organization of the United Nations)的邀請，再次赴美國考察並任美國威斯康辛大學(University of Wisconsin)特約研究員。1948 年，獲聯合國學術考察獎學金和美國威廉氏營養缺乏病預防基金獎學金，在美國研究考察。

侯祥川於 1949 年初，回到上海。同年 5 月上海戰役後，中國共產黨解放軍在 5 月 27 日控制上海全境，成立中國人民解放軍上海市軍事管制委員會和上海市人民政府。此間，許多與民國政府及海外機構有關的人員、財產和機構，隨同中華民國政府撤離上海。

侯祥川於 6 月參加了中國人民解放軍第八兵團衛生部工作，後調華東軍區人民醫學院（即今第二軍醫大學）任訓練部副部長兼科學研究室主任。1955 年升任科學研究部部長，兼生物化學教研組主任教授。1958 年調入軍事醫學科學院，任軍隊衛生營養研究所研究員、軍糧營養研究室主任、研究所學術委員會主任委員、醫學科學院學術委員會委員。

侯祥川是 1926 年成立的中國生理學會和 1946 年成立的中國生化學會的創建人之一。1949 年中華人民共和國建政後，1954 年中華全國自然科學專門學會聯合會正式成立，將生理科學各專業學會合併為中國生理科學會，他為常務理事。1979 年中國生化學會和中國營養學會相繼重新成立，侯祥川都被選為名譽理事。

1925 年，侯祥川參加中華醫學會；1936 年，任中華醫學會營養委員會秘書；1949 年，曾任中華醫學會上海分會會長。1953-1955 年，侯祥川任中華醫學會醫史學會秘書、副主任委員、主任委員。

1926 年，侯祥川參加北京自然博物學會；1932 年，任名譽執行秘書；1940 年，任上海公共衛生學會會長。1981 年，侯祥川被聘為天津食品工業協會顧問。

侯祥川還曾參加多種國外的學術團體：1928 年，參加美國實驗生物學和醫學學會(Federation of American Societies for Experimental Biology)；1930 年，參加英國生物化學會(Biochemical Society)，後為退休名譽會員：1948 年，參加美國化學會(American Chemical Society)和美國營養學會(American Society for Nutrition)，後為營養學會退休名譽會員。1962 年，侯祥川被選參加美國紐約科學院（New York Academy of Sciences）；1977 年，他被聯合國大學聘請為「世界饑餓方案」顧問委員會委員；1980 年，任國際營養科學聯合會(International Union of Nutritional Sciences)營養供給量專家委員會委員。

侯祥川多次出國參加國際學術會議：1927 年，在蘇格蘭愛丁堡(Edinburgh, Scotland)出席英國雷士德百年紀念大會；1928 年，在安阿巴出席全美實驗生物及醫學大會；1934 年，在南京出席遠東熱帶醫學大會，為營養組秘書；1935 年，在俄羅斯莫斯科和列寧格勒(Moscow and Leningrad, Russia)出席國際生理學會；1937 年，於印尼萬隆(Bandung, Indonesia)出席國際聯盟遠東農村衛生會議，為營養專門委員會委員；1938 年，於越南河內(Hanoi, Vietnam)出席遠東熱帶醫學會議，為營養組秘書；1948 年，於菲律賓碧瑤(Baguio, The Philippines)出席聯合國遠東魚米營養會議；同年，在美國華盛頓(Washington, U.S.A.)出席國際熱帶醫學及瘧疾大會，為中華民國代表團團長並任該大會營養組主席；1979 年，去日本東京參加聯合國大學「世界饑餓方案」顧問委員會會議；1981 年，參加在天津舉行的國際營養學討論會，並去美國聖地牙哥(San Diego, U.S.A.)參加第十二屆國際營養學大會，在「中國的食物和營養問題」工作會議上曾作中心發言。

侯祥川 1951 年在第二軍醫大學榮立一等功一次，1953 年又於該校榮立三等功一次，1953 年被評定為一級教授，1961 年中華人民共和國國防部授予上校軍銜。1982 年 4 月 17 日侯祥川逝世於北京。

營養缺乏病的臨床研究

侯祥川一生致力於生物化學和營養學的研究，是中國最早從事現代營養學研究的著名學者之一。其突出的成就，表現在營養缺乏病的臨床研究上面。

侯祥川從 1933 年轉入上海雷士德醫學研究所開始，專門從事營養學方面的研究，那時他就開始注意營養缺乏病的防治。日本帝國主義的侵略，給中華民族造成了深重的災難。抗日戰爭時期，大批難民流離失所，一般民眾的膳食品質都很差。因此，營養缺乏病患者，尤其是維生素缺乏病患者顯著地增加。此間，侯祥川直接參加了對戰爭傷患和難民的傷病救治工作。通過臨床觀察大量的營養缺乏病例，進行研究分析。並結合實驗室的實驗與治療結果，確定了這些營養缺乏病的診斷與治療方法。同時，還在國內外發表有關食物維生素與營養問題的論文一百餘篇。1940 年代初，他在國內首次報告了中國一般民眾核黃素缺乏的各種症狀，及治療方式與劑量。

1949 年冬，中國人民解放軍駐滬部隊大批指戰員患「繡球風」（陰囊炎），久治不愈。後經侯祥川檢查，診斷為核黃素缺乏症。經補充核黃素治療，大批患者很快痊癒。經他建議並擔任技術指導，在華北部隊中開展了大規模營養調查。發現部隊對副食品的選用和烹調方法，以及烹調前的處理不當，是發生營養缺乏病的重要原因。在他指導下，為部隊舉辦營養培訓班，從而使營養缺乏病大為減少。

編著和翻譯一系列營養學專著

侯祥川一貫注重生物化學和營養學學術理論的研究與交流，曾在國內外發表有關論文二百餘篇，編著和翻譯一系列營養學專著。他於 1957 年編著出版的《營養缺乏病綱要及圖譜》，是他多年從事營養研究的傑出成果。圖譜中的大部分照片，拍攝自他在抗日戰爭時期治療的典型病例。此書引證的大量文獻，很多是他以往發表的論文及研究成果。這部著作成為中國 1950-60 年代，從事營養缺乏病治療、研究和教學的重要參考材料。

他於 1963 年編著出版的《食物中毒》、《飲食與營養學》，是中華人民共和國成立後的首批營養學專著。為解決醫學院對營養衛生學教材的急需，對推動中國營養學研究具有重要作用。他於 1964 年主編的《營養學進展》、1970 年代末主譯的《營養學現代知識》及 1980 年代組織編寫的《臨床營養學》，都對中國營養學發展起到重要的促進作用。

軍用口糧和輻射技術研究

侯祥川所從事過的研究領域很廣，除在營養缺乏病的研究上取得突出的成就外，在食物營養成分的研究、消化生理的研究、中藥藥理的研究等方面都有顯著的成就。1950 年代末 1960 年代初，他還主持開展了軍用口糧的製備及效用的研究和輻照技術研究。他主持研究的各軍兵種口糧，體積小，重量輕，便於攜帶食用、包裝嚴密、耐儲存，經現場試用得到滿意結果。他還研究改進了艦艇遠航食品的裝備，及失事情況下的備用口糧。這些成果均被有關部門採用，奠定了中國軍隊第一代口糧的基礎。他是中國首先應用輻照技術，研究保存食物的科學家。由他主持的實驗證明，稻米和小麥麵經 Ɣ 射線 8 萬倫琴(roentgen)照射後，8 種氨基酸無明顯變化。大鼠、狗、猴吃了已照射的稻米，體重、血象、食物利用率等均無明顯改變。用不同劑量照射的食品，經狗、猴、人類幾個月到一年的食用，未發現不良影響。

熱愛祖國，奮鬥終生

侯祥川熱愛祖國，青年時代曾參加「五四運動」。抗日戰爭時期，他支持中國共產黨直接領導的八路軍、新四軍的抗日鬥爭，為新四軍購買醫療器械、藥品，幫助訓練醫務人員。他支持兒子參加共產主義革命鬥爭，掩護地下工作人員，介紹親友到解放區參加醫療救護工作。中華人民共和國建政前夕，他放棄國外優裕條件，衝破各種阻撓，毅然回國繼續醫療服務。

侯祥川熱愛科學，為中國營養科學的振興貢獻了畢生精力。1981 年，他雖年過八旬，仍赴美國參加了第十二屆國際營養學大會。為重新組建中國營養學會，他積極籌備，把不同部門的營養工作者團結起來。並發表文章，宣傳營養工作的重要性。終使該學會於同年恢復，《營養學報》也得以復刊。1982 年 3 月，他仍不顧年邁體衰，由滬赴津參加全軍營養需要量學術討論會並作了報告。會議期間，他因病住院，仍堅持審閱稿件，撰寫論文。他在生命的最後一息，仍關心著中國營養科學事業的發展，把珍藏多年的 3,465 冊圖書資料捐獻給軍事醫學科學院軍隊衛生研究所。

侯祥川學識淵博，治學嚴謹，樂於助人。他在國內以至國際營養學界都有崇高的聲譽，但從不以權威、教授自居，對求教者無不熱情幫助與鼓勵。中國營養學界不少知名專家學者都受益於他的教誨與幫助。他一生勤奮儉樸，存款三萬餘元。逝世後，其子女根據他的遺願將存款全部捐贈給中國營養學會。設立了侯祥川基金，獎勵營養學術和優秀營養工作者。侯祥川在中國現代營養和生物化學發展史上所做出的貢獻，將永遠銘刻在人們心中。

簡歷年表

1899 年 12 月 13 日出生於大清國廣東省揭陽縣

1924 年　畢業於中華民國北京協和醫學院，並取得美國紐約州立大學醫學博士學位。

1927—1928 年　獲美國洛克菲勒基金會獎學金，赴加拿大和美國進修、訪問，獲加拿大麥吉爾大學理學碩士學位。

1928—1932 年　任中華民國北京協和醫學院生理學系助教、藥理學系副教授。

1932—1948 年　任中華民國上海雷士德醫學研究所生物化學營養學研究員。

1945—1948 年　兼任中華民國南京中央衛生實驗院營養研究所主任。

1948—1949 年　再次赴美國考察並任威斯康星大學特約研究員。

1949—1958 年　任中華人民共和國華東軍區人民醫學院（即今中國人民解放軍第二軍醫大學）教授兼生物化學教研室主任、訓練部副部長、科研部部長。

1958—1982 年　任中國人民解放軍軍事醫學科學院軍隊衛生研究所研究員、軍糧營養研究室主任、軍隊衛生研究所顧問。

1961 年　中華人民共和國國防部授予上校軍銜。

1982 年 4 月 17 日逝世於中華人民共和國北京

主要論著

1　侯祥川，李德麟．飲食與營養學．上海：廣協書局，1953．

2　侯祥川．食物中毒．北京：人民衛生出版社，1954．

3　侯祥川．營養缺乏病綱要及圖譜．北京：人民衛生出版社，1957．

4　侯祥川．營養學進展．上海：上海科學技術出版社，1966．

5　侯祥川．維生素 B2 缺乏症與食物處理及烹調的關係．人民軍醫，1952．

6　侯祥川．食物中樞問題．中華醫學雜誌，1954，40（3）．

7　侯祥川．食物維生素成分與烹調、儲藏、加工等的影響．慶祝建國十週年醫學成就論文集．上集．北京：人民衛生出版社，1959．

8　侯祥川．小球藻營養效用問題．中華衛生雜誌，1963，8（1）：2934．

9　侯祥川．照射糧食的營養衛生研究．中國生理科學會第二屆全國營養專業學術會議論文摘要彙編（成都），1979．

10　侯祥川．中國營養學科的回顧與展望：近期營養研究的一些成就．營養學報，1982．