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THE CONCEPT OF ASSIMILATORY SYSTEM OF PAULESCU DATING FROM 1912

Constantin IONESCU-TÎRGOVIŞTE[1]

[1]"Prof. Nicolae Paulescu" National Institute of Diabetes Nutritional and Metabolic Diseases, Bucharest, Romania
Corresponding author: C. Ionescu-Tîrgovişte
E-mail: cit@paulescu.ro

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CHAPTER IV
NEOPLASIC HEPATOPATHIES

There are two types of hepatic tumours[1]: *epithelial and conjunctive*.

ARTICLE ONE – EPITHELIAL NEOPLASIAS

These neoplasias are classified in two categories: adenomas and epitheliomas.

§ 1. – HEPATIC ADENOMAS
(Syn. *Cystic liver degeneration*)

Hepatic adenomas consist of abnormal and limited vegetation of glandular cells, with tendency towards cystic degeneration.

Etiology and pathogenicity – Adenomas occur at an advanced age. In 20 personal cases, the patients were between 39 and 74. They do not appear in children and are more frequent in women than in men. These tumours often coexist with renal cystic degeneration.

Pathologic anatomy – The adenoma, being the effect of a double process, both of cellular proliferation and cystic transformation, has two stages. The former is characterized by the formation within

[1] E. LANCEREAUX, *Traité d'Anat. path.,* Paris, vol. I, preface IX and pag. 298.

hepatic lobes of small nodules with the size between the head of a needle and that of a pea, slightly protuberated, sometimes worn in the middle (simple adenoma).

The latter stage is characterized by the presence of cysts the size of a lentil grain up to that of an egg, spread on the surface and deep in the liver (cystic adenoma). These cysts contain a transparent, yellowish, slightly viscous liquid which presents cubic epithelial cells with different degrees of alteration, mucin, cholesterine blades and albumin which coagulates in contact with heat, but do not contain biliary pigments, sugar or urea (COURBIS). The walls of these cysts are made of a conjunctive tissue which becomes fibrous and compresses the neighburing glandular bridges which turn into pseudo biliary canaliculi. The remaining hepatic cells, the bile ducts and the blood vessels are intact. The liver, thus modified, becomes tumid and reaches up to 8 kg, even more.

The kidneys are often affected by cystic degeneration which increases their volume and weight and destroys their tissue almost entirely. The pancreas rarely suffers from a similar alteration.

Symptomatology – Hepatic adenoma has an insidious start and its first stage is silent.

The next stage manifests through digestive disorders (lack of appetite, vomiting, diarrhea), anemia, hemorrhage (epistaxis, brain hemorrhage etc.) and, finally, through phenomena of hepatic insufficiency and particularly renal insufficiency (uremia). Jaundice and ascites are exceptional.

The patient's exam reveals, upon percussion, an increase of the liver volume and, upon palpation, the existence of cystic nodules. An exploration puncture allows to extract from these cysts a whitish liquid, with no echinococci hooks. The spleen is not tumid. The urine first grows in quantity, given the modifications of the kidneys; later on, it diminished and becomes albuminoidal.

The evolution of this disease is chronic and it spreads onto several years. The ending usually occurs through hepatic insufficiency and especially uremia (9 times out of 10).

Semiology – Impossible to discover in the beginning, hepatic adenoma is difficult to identify later; only the sensation of elastic tumours and the extraction with the syringe of Pravas of a yellowish albuminoidal liquid with no hydatid hooks leave no doubt on the nature of the disease.

The prognosis is serious, especially is there is simultaneous renal cystic degeneration.

Treatment – The treatment is limited to fighting phenomena of hepatic and renal insufficiency with purgatives and diuretics.

§ 2. – HEPATIC EPITHELIOMAS
(Syn. *Hepatic cancers*)

Hepatic cancers are classified in two groups: *primary epitheliomas*, which derive from the cells of this gland, and *secondary epitheliomas*, which originate in the cells of another organ.

I – PRIMARY EPITHELIOMAS

These cancers form two groups: the former originates in the cells of the liver parenchyma; the former in the epithelium of intra hepatic bile canalicules.

A. – Glandular liver epithelioma

In 1867, one of us published[2] under the name of *hepatic* adenoma, a series of seven cases of glandular hepatic cancer, which he subsequently considered to be epitheliomas. Since then, many authors have reported similar facts that were interpreted as adenomas or cirrhosis cancers (HANOT and GILBERT).

Etiology and pathogenicity – Acinar or glandular cancer of the liver is generally met in an advanced age. Out of 21 personal observations, we note:

[2] E. LANCEREAUX De l'hépato-adénome, *Soc. de Biol.*, Paris, 1867

Between 27 and 30..... 2 cases
Between 30 and 40..... 2 cases
Between 40 and 50..... 4 cases
Between 50 and 60..... 7 cases
Between 60 and 70..... 5 cases
Between 70 and 80..... 1 case

Out of these 31 cases, only 5 are women, which indicates that women are less prone to this disease than men.

Abuse of alcoholic drinks and trauma seem sometimes to represent favoring circumstances.

Moreover, in several cases an special part is played by heredity, which is not often homologous; this means that ascendants develop cancer at any organ (stomach, uterus).

Pathologic anatomy – The liver affected by acinar epithelioma displays nodules grouped and separated by fibrous tissue which increases the volume of the gland and gives it a cirrhotic aspect. These hemispheric or flat nodules are unequal, some with the volume of a pea, others, of an apple.

The microscope reveals cancer cells organized in trabecular forms or large and anastomosed lumps around which the vascular-conjunctive tissue proliferates. These lumps form considerable masses, where the intestinal tissue becomes alveolar; sometimes, the cells contained in the alveoli suffer fat-granular degeneration, disintegrate and resorb, so that, in several points, there is nothing left but a fibrous skeleton, hence the name *cancer with cirrhosis* (HANOT and GILBERT).

Epithelioma masses often acquire a greenish hue, since neoplasic cells produce bile, as we noted in a personal case, which materialize in small calculi of colored matter located in a cancer mass.

The elements of this cancer affect almost constantly the branches and trunk of the portal vein, as well as the hepatic veins, forming plugs which block them partially or completely. Sometimes, when the hepatic veins are affected, we saw plugs continuing into the vena cava up to the right atrium, where they end in a swollen extremity the size of an egg[3]. Under such circumstances, cardiac and pulmonary embolisms can occur; moreover, there is heightened circulatory discomfort and, subsequently, considerable ascites.

Acinar hepatic cancer also spreads to the neighboring organs and generalizes through the lymphatic system. Often, hilum and mediastina ganglions are impregnated with cells migrating from the liver, colored in green by a bile pigment which they produce[4]. Remote generalization is relatively rare; out of 24 observations, we found that this epithelioma propagated as follows: 4 times to the gallbladder, twice to the lungs, twice to the peritoneum and twice to the spleen.

The spleen is also tumid; the digestive tube is congested or bruised; the peritoneum contains a transparent or bloody liquid; the skin, kidneys and other organs are colored in yellow by the bile pigment.

Symptomatology – This disease has an insidious start. In the beginning, the patient suffers from anorexia with nausea produced by eggs and meat; digestion is difficult and is accompanied by meteorism, food and bilious vomiting. Simultaneously, the patient turns pale, loses weight rapidly and complains of pains in the right hypochondrium. Then he realizes that the abdomen is swollen and exploration allows to detect that the liver is tumid, firm, often with lumps, the spleen has increased volume, abdominal subcutaneous veins start to dilate.

Then two main symptoms appear, namely jaundice and ascites.

Jaundice, which sometimes precedes and other times follows ascites, usually starts with the face, later to generalize to the entire organism. The skin acquires a color which varies from light yellow to dark green. The feces are discolored and urine, white, contains coloring bile matter. This symptom persists and usually remains until death.

Ascites is almost as constant as jaundice; it coexists with the dilation of the veins of the umbilical regions. The ascites liquid is sometimes serous, other times bloody. In an advanced stage of the disease, an edema invades the lower limbs, the abdomen and even the thorax.

Sometimes hemorrhages such as epistaxis, purpura, hematemesis, melena occur.

[3] E. LANCEREAUX, De l'hépato-adénome, *Soc. de Biol.,* Paris, 1867
[4] IDEM, De l'hépato-adénome, *Soc. de Biol.,* Paris, 1867

On the long run, there are symptoms such as fever with dry tongue, calm delirium, prostration, relaxation of the sphincters and the patient succumbs to coma.

The evolution of this disease is continuous and progressive, the duration varies between several months and 1 or 2 years.

Semiology – It is generally easy to diagnose acinar hepatic cancer considering the evolution of the disease.

The epitheliomas of the bile ducts and secondary epitheliomas of the liver are distinct due to the absence of jaundice and ascites, coexisting with an irregular surface of the organ.

Alcoholic, paludic and syphilitic cirrhosis can be mistaken for primary hepatic cancer; they differ through their evolution.

The bloody nature of ascites liquid is a strong sign in diagnosing this epithelioma.

The prognosis of acinar hepatic cancer is fatal. The phenomena of hepatic insuficiency are signs of a near ending.

Treatment – The treatment of this disease is null. The physician should be able to recommend a convenient diet and, if disgust towards meat cannot be overcome, he must prescribe an exclusive dairy diet. Moreover, he shall recommend chloral against insomnia and opiates to calm down pains. In case of strong feelings of weight, ascites paracentesis is recommended.

B – Epitheliomas of the intraheptic bile canaliculi

Etiology – This form of cancer, very rare, is caused by heredity, trauma and, according to some authors, the action of chemical agents which irritate bile canaliculi.

Pathologic anatomy – The liver volume increases, reaching a weight of 2 or 3 kg. It is the location of several round neoplasic masses, with various sizes, surrounded by some sort of fibrous capsule.

The microscope analysis reveals that canalicular epithelioma has the shape of tubes, with variable width, lines with one or several strata of cubic or cylindrical cells. They are surrounded by conjunctive tissue.

The neighboring glandular parenchyma is compressed by the neoplasia.

In a more advanced stage, the cancer cells suffer granular degeneration and disintegrate, while the conjunctive stroma withdraws and becomes fibrous.

Symptomatology – This form of cancer manifests through lack of appetite, disgust for meat, coexisting with digestive disorders, food or bilious vomiting and intermittent diarrhea. Jaundice is rare and ascites even rarer.

The patient turns pale, loses weight and strength, the liver acquires considerable sizes and is dotted, on the surface, with nodules of woody consistency.

In the last stage, legs fill up with edemas and the patient succumbs to marasmus or following a complication (hepatic or renal insufficiency, pneumonia etc.).

Semiology and treatment – Intrahepatic bile cancer is very difficult to diagnose and it is often recognized only through exclusion.

The prognosis is among the most serious.

The treatment consists of prescribing an appropriate diet, preferably milk, in the case of lack of appetite; in order to help him sleep, the patient is administered chloral and pain is calmed down with opiates.

II – SECONDARY EPITHELIOMAS

Etiology and pathogenicity – All cancer types can extend to the liver, but the cancer of abdominal organs have a special tendency, given their circulation relations with this gland.

Pathologic anatomy – Secondary hepatic epitheliomas which are the effects of an embolic process are located in the portal spaces, preferably at the organ periphery. They start as white spots and soon grow to reach the size of a pea, peanut or nut. When they unite, these foci sometimes form large masses and increase the liver volume up to 3.5 kg or more.

First rounded when found at the surface of the gland, these cancer masses later become undulated and hollow in the middle. When sectioned, they present a whitish color and firm, woody consistency if they are small and soft and semi liquid if they are large.

The microscopic analysis reveals that these neoplasias are made, depending on the constitution of the primary tumour, of cylindrical, polyedric or pavimentous cells.

The cylindrical epithelioma which usually originates in the small intestine of the uterine mucous membrane is made of tubes with variable width surrounded by vascular-conjunctive tissue.

The acinar epithelioma which originates in a stomach gland is made of an alveolar texture which contains polyedric cells with various deformation degrees.

The pavimentous epithelioma, very rare, is only met in cancer of the esophagus, the last segment of the rectum or cervix. It consists of cellular nodules with epidermal globes.

Symptomatology – The initial clinical manifestations of this form of cancer are insidious and often go unnoticed. After a while, we realize, through percussion and palpation, that the liver grows progressively in volume and the surface covers with asperities with depressions the shape of a cup; these cancer foci have a specific woody toughness. A pain with variable intensity, irradiating towards the shoulder, occurs in the right hypochondrium.

Appetite it lost; the patient feels disgust for meat; digestion is slow; sometimes, there are meteorism, vomiting, acholia (discoloration of the feces in the absence of the bile), hematemesis, melena and other hemorrhages. Jaundice and ascites are only present in case of compression of the bile ducts and portal vein by the cancer masses.

Finally, specific anemia installs, and progressive weight loss and degradation end up in marasmus and death.

The evolution of the secondary hepatic epithelioma is variable, relatively slow in the case of pavimentous cancer and faster when the cancer is cylindrical or glandular. A reduced cancerous ulcer of the stomach, deep and without any regular edges, can generate in the liver large masses with very fast evolution; the hepatic epithelioma which follows testicular cancer also has a rapid evolution and excessive growth.

The duration of the secondary hepatic cancer is several months on average. The fatal ending is the result of cancer degradation or a complication: hepatic insufficiency, uremia, intestinal infection, hemorrhages etc.

Semiology – It is relatively easy to diagnose secondary hepatic epithelioma given the presence on the surface of the organ of nodules with woody consistency, which coexist with a condition of profound anemia and progressive deterioration. Moreover, the exam of the spleen, which is normal, allows to distinguish this epithelioma from syphilitic cirrhosis. Primitive hepatic cancer is different from it due to the presence of jaundice and ascites, which are constant symptoms; the same can be said of the primitive epithelioma of the gallbladder, bile ducts, pancreatic head and duodenum.

The prognosis is among the most serious.

Treatment – There is no treatment for these tumours. The physician must prescribe a diet, preferably based on milk, in order to feed the patients; insomnia and pains shall be fought against with opiates and chloral (2-3 gr.).

III – MELANIC EPITHELIOMAS
(Syn. *Hepatic melanomas*)

There are two types of melanic tumours: the epithelial one derives from the cells of the mucous body of Malpighi, as well as from the elements of the external layer of the retina and iris; the other one,

conjunctive, originates in the choroid cells. All these cells normally contain melanin, a pigment that can be attacked by regular reactive agents.

Hepatic melanic epitheliomas and fibromas are secondary tumours; we cannot accept the opinion of authors who claim that the liver can be primarily the starting point of such neoplasias[5].

Etiology and pathogenicity – Out of 25 observations of hepatic melanoma, there are 17 men and 8 women (TOLEDO); consequently, it seems that this disease is more common in men than in women. The highest frequency is between the ages of 40 and 60. Trauma and heredity are the only known occasional causes.

Verrucae are a local predisposition for the formation of melanic neoplasias, which are particularly noted in the extremities of the legs and, more rarely, in the abdomen, thorax and head. Pigmented cells of the eye can also generate such neoplasias. These initial foci are the starting point of elements which, carried by the arterial blood, stop in the hepatic capillaries, where they form secondary foci.

Pathologic anatomy – Hepatic melanic epitheliomas manifest under two forms: infiltrated and nodular.

Infiltrated melanosis, very rare and little studied, was noted by one of us in a 58 year old woman, who had an ulcerated tumour spread on 5 cm, on the lower third of the right calf. Several inguinal and vertebral ganglions, the liver and the spleen were dotted with black, melanic spots made of pigmenting granulations deposited in the cells of these organs; in the liver, the black infiltration was especially localized around the portal spaces. Similar other cases noted ever since leave no doubt as to the existence of the dissemination of pigmenting granulations coming from melanic tumours.

The nodular form, more common than the previous one, results from the infection, not by pigmenting granulations, of young epithelial cells which, staring from the initial focus, stop and bind to the liver, where they multiply and form secondary foci. It is characterized by the presence in the liver of multiple rounded masses, which rarely create cup-like depressions such as secondary non melanic cancer foci. When sectioned, these nodules delineated by fibrous capsules have a smooth surface and the color varies from grey to dark black, giving the gland the aspect of a truffle. They vary in sizes from that of a pea to that of an orange and increase the volume of the liver which weighs up to 3, 4, 5 and even 7 kg. Firm in the beginning, they degenerate following the destruction of the cells which create a mixture made of melanic granulations.

The hepatic tissue is usually normal and the gallbladder contains little bile. Sometimes, large blood vessels are blocked and cause ascites. Lymphatic hilum ganglions impregnate with melanic cells; the peritoneum and in general several organs, especially the spleen, host small black tumours.

The microscopic analysis reveals that melanic nodules are made of polyedric cells, initially less pigmented, then impregnated with melanin; these cells are located in an alveolar conjunctive stroma.

Symptomatology – Hepatic melanic epitheliomas remain latent initially for several weeks and months. Then, they continue with pains in the right hypochondrium, lack of appetite, slow digestion, vomiting, diarrhea, sometimes black, meteorism. The liver progressively increases in volume and finally occupies the entire right region, the navel region and even part of the hypogastrium; it spreads onto the spleen, which is tumid. Its surface, of woody toughness, often contains lumps the size of a peanut or a nut. Sometimes, jaundice or ascites occurs as a result of the compression of portal vessels or bile ducts.

The urine, clear when eliminated, acquires later under the influence of air and light, a brown, even black color; this modification of the urine appears in 4 out of 5 cases observed by us. The black color is given by a soluble substance, initially transparent, which, turns black under the action of air and light; this substance is not destroyed by putrefaction.

The blood exam allows the discovery of pigmenting granulations.

In a more advanced stage, degradation is increasingly visible; the skin, yellow or pale, covers with melanic tumours and sometimes acquires a brownish or black color, as we saw in one of our patients who, although blonde, ended up looking like an African American.

[5] E. LANCEREAUX, *Traité des maladies du foie et du pancréas*, Paris, 1899, pag. 495.

Then multiple hemorrhages, delirium with or without fever appear and the patient succumbs to coma. The evolution of this disease is continuous and progressive and the duration does not exceed 6 months.

Semiology – The diagnosis must rely on the increase of liver volume, the presence of woody lumps at the surface, the blackening of the urine in contact with air and light and the anterior extirpation of the eye or a cutaneous tumour.

The prognosis is among the most serious.

Prophylaxis and treatment – The total ablation of primary neoplasia allows to avoid secondary lesions.

The treatment, only palliative, consists of feeding the patient mainly on a dairy diet, which is usually well tolerated; calming pains with opiates and fighting insomnia with sulfonate and chloral in sufficient doses. Uremia and hepatic insufficiency are fought with purgatives and diuretics.

ART. II – CONJUNCTIVE NEOPLASIAS

These hepatic neoplasias, representing the abnormal vegetation of mesodermic provenience, are classified in edothelioma, myxoma, lipoma, chondroma, osteoma, lymphoma, fibroma and angioma.

§ 1. ENDOTHELIOMA

Hepatic endothelioma, one of the most rare, originates in vascular endothelium. The only known example was reported by BLOCK. It was a 48 year old woman suffering from an abdominal tumour, whose urine contained a black pigment. The liver, very large, contained a black neoplasia, as large as a fist, and black pigmenting stains. The microscopic analysis revealed that the capillary endothelium was dense and pigmented. A focus of the same color, the size of a pea, was located in the visceral pericardium and another on the left kidney.

This sole case, complicated with melanosis, must rely on new similar facts in order to persuade us to accept it as endothelioma.

§ 2. MYXOMA

Hepatic myxoma is as rare as endothelioma, and we are only aware of two cases.

The former envisages an 8 month old little girl, whose abdomen grew rapidly, especially on the right, where there was a tumour from which a light yellow liquid was extracted through puncture. The abdomen continued to grow considerably, abdominal subcutaneous veins dilated and the baby died. The liver continues to a tumour which invaded the entire abdomen, weighing 2590 g; this tumour is striated with cavities which close some sort of yellowish jelly. The microscope analysis revealed that it was made of fibers which limit the alveoli, which contained large cells with long extensions (CORNIL and CAZALIS).

The latter case refers to a woman who was operated twice of a breast tumour and who died of prolonged diarrhea. The liver hosted a neoplasia the size of a child's head; this neoplasia was semi-transparent at the periphery and opaque in the middle. The microscopic analysis showed the existence of a reticulate tissue, made of anastomosed cells and circumscribing alveoli containing a viscous liquid (NUNN).

§ 3. LIPOMA

HOLMES reported a case of fat hepatic tumour which perforated the diaphragm and entered the thorax, from where it was removed through expectoration. One of us[6] found in the hepatic parenchyma a lobar neoplasia, the size of a peanut, which was a lipoma.

[6] E. LANCEREAUX, *Traité des maladies du foie et du pancréas*, Paris, 1899, pag. 512.

§ 4. LYMPHOMA

This name gathers two diseases, a neoplasia of the lymphatic tissue and an infiltration of increased leucocytes– both manifestations of the same disease, leukemia.

They are met in young age and are sometimes caused by a trauma and maybe paludism.

The liver volume increases; it weighs 3, 4, 5 and even 7 kg; however, it maintains its shape. The free surface is smooth; its capsule is thin and allows to see the hepatic parenchyma, which is pale. The section reveals several whitish spots, made of the clots which fill up the bronchi of the portal vein and hepatic veins. The liver consistency is normal and the tissue is easily crushed with the finger. The microscopic exam demonstrates that the capillaries of the hepatic lobes are full of white globules, which increase occasionally. The hepatic cells are compressed and some of them, atrophied.

The spleen is enormous, it weighs 3-4 kg, even more; often, infarction occurs in it. Lymphatic ganglions and other organs such as bones or kidneys display alterations similar to those of the liver.

These lesions are accompanied by another one, relatively rare, which consists of a new formation made of adenoid tissue, which translates into the occurrence of whitish tumours, few in number, with the volume of a millet grain or a pea. These neoplasias are surrounded by an area of sclerosis; they are made of a reticulate tissue which contains leucocytes.

This disease manifests through tumefaction of the liver, whose anterior edge reaches the navel and that of the spleen, which grows even larger than the liver and advances in the abdominal cavity up to the pelvis. These organs are smooth at the surface and if they are suddenly compressed, they do not cause any pain.

Abdominal subcutaneous veins do not dilate and ascites is generally missing.

The ganglions of the inguinal fold, the axilla, the throat sometimes form large masses with irregular profile.

Blood exam reveals a reduction of the number of cells and a considerable increase of the number of leucocytes. Urine is rare and contains many ureates.

The next symptoms are lack of appetite, weight loss, progressive loss of strength and a general feeling of exhaustion; finally, the patient succumbs to marasmus and, most often, following an infectious complications (pneumonia, anthrax, etc.). Sometimes, death occurs after uremia or hepatic insufficiency.

This disease usually sfor several years.

It is relatively easy to diagnose hepatic lymphoma, especially in case of appreciable leukocytemia.

The prognosis is very serious.

The treatment is similar to that for leukemia (see below); it consists of the potion of Fowler (xx drops at every meal) with occasional interruptions in order to avoid accumulation. Moreover, it is recommended to administer alcoholized lotions.

§ 5. FIBROMAS

Hepatic fibromas, made of the disordered vegetation of the conjunctive tissue, has three varieties: embryonic fibroma, adult fibroma and melanic fibroma.

A – Embryonic fibroma
(Syn. *Hepatic sarcoma*)

Etiology – This appreciably common neoplasia is met especially in children, but it is also rarely met in adults and, exceptionally, in old people.

Pathologic anatomy – Hepatic sarcoma has whitish, vascularized, single or multiple masses of variable size which lift the liver weight to 5 or 6 kg and fill the abdominal cavity, creating lumps in the center. The consistency of these masses is often soft when they suffer from mucous or fat transformation or

if they become the location of abundant hemorrhage. Sometimes several organs are affected by similar neoplasias.

The microscopic exam reveals that the tumour has globular-cellular or elongated cellular shape. It contains numerous large capillaries, whose break causes hemorrhages inside or at the surface of the neoplasm, in the abdominal cavity. Other times, they suffer fat or mucuous degeneration which leads to the formation of cysts.

Symptomatology – Hepatic sarcoma has an insidious start, with pains in the right hypochondrium and rapid and progressive tumefaction of the liver. This gland soon presents a soft protuberated and elastic tumour at the epigastrium or under the costal margin. Often, this tumour suffers a sudden growth, following a hemorrhage which occurs in depth, as we noted in two cases.

The abdomen dilates following gastro-intestinal meteorism; sometimes, subcutaneous veins dilate and ascites, often bloody, and even jaundice occur through the compression of the portal vein and the bile ducts.

Finally, the patient loses appetite and soon foods causes disgust; he is seized by vomiting and diarrhea; he loses weight rapidly and is seized by a state of weakness. Then hemorrhages appear, especially epistaxis; urine reduces significantly; the tongue dries; delirium, prostration occur and death happens in marasmus.

The evolution of the disease is continuous and progressive; the duration, relatively short, fluctuates between a few months and one year.

Semiology and treatment – The diagnosis must rely on the physical features of neoplasia, on the fats evolution and particularly on the little advanced age of the patient. In a personal case, that of a 49 year old woman, where a tumour which soon filled the entire abdominal cavity, we thought of an ovarian cyst. The origin of the neoplasia was in the square lobe of the liver.

The prognosis is very serious.

There is no healing treatment, and the physician can only recommend the patient to drink milk, calm his pains and help him sleep.

B – Adult fibroma

It is a rare disease, and one of us[7] examined two cases.

The former refers to a 28 year old woman, who died in a condition of extreme weight loss. The liver, tumid, had in the center a rounded mass made of fibrous tissues, impregnated with calcareous salts, so tough that we had to use a saw to cut it into two pieces. In the neighboring area there were a few small isolated tumours of the same nature.

The latter case, similar to the previous one, refers to a single calcified neoplasia which, when sectioned, had the aspect of a tendon.

C. – Melanic fibroma

This highly rare neoplasia is usually the result of choroid melanoma (LITTEN). Despite some published cases, it is not known whether there is also a primary hepatic melanic fibroma.

Secondary hepatic melanoma consists of black tumours the size of a lentil grain or an almond, made of elongated cells which contain black granulations resistant to sulfuric acid.

The symptoms are similar to those of non pigmented hepatic sarcomas.

The healing treatment is inexistent.

§ 6 – ANGIOMAS
(Syn. *Erectile hepatic tumours*)

The liver is, from all the organs, most exposed to angioma which is usually located in the convexity of the right lobe. The age when it occurs is difficult to set, since it does not cause any disorder, so it can be met

[7] E. LANCEREAUX, *Traité des maladies du foie et du pancréas,* Paris, 1899.

in old persons as well; but we cannot conclude that it occurs in old age and not in youth. One of us saw over 25 cases in his medical career.

Single or multiple angiomas appear as violet or bluish spots or tumours, the size of a pea, a peanut or a nut, rarely larger. The section reveals that these neoplasias are pediculate or not, entering the parenchyma like a coin. They withdraw following the overflow of an amount of blood and have the features of a cavernous tissue. They are made of fibrous bands, lined with endothelium and limiting the cavities of variable size which communicate with the vessels. Once formed, angiomas increase very little and sometimes suffer the coagulation of the blood they contain and which turns them into some sort of fibroma or tumours with cystic cavities.

Hepatic angiomas, few in number and small, do not determine any considerable symptom and are only discovered upon the necropsy.

It is important not to mistake them for angimatomous sarcomas which are considerably serious.