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ARTERIOSCLEROSIS DE LA AORTA CON OCLUSION TROMBOTICA DE SUS PRINCIPALES TRONCOS

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Las enfermedades de la aorta asociadas con disminución o ausencia de la pulsatilidad en las extremidades han despertado vivo interés en la reciente literatura médica. La oclusión de la bifurcación aórtica por arteriosclerosis, llamada Síndrome de Leriche (MOREL 1), Trombosis crónica aortoilíaca (MARTORELL y VALLS SERRA 2) o Trombosis insidiosa de la aorta (ELKIN 3) es con frecuencia responsable de la desaparición del pulso en las extremidades inferiores. Más recientemente, se ha dirigido la atención hacia la obliteración arteriosclerótica de los troncos supraaórticos, llamada también Enfermedad sin pulso (SHIMIZU 4) o Martorell Síndrome del arco aórtico (DA COSTA y MENDES FAGUNDES; DAVIS J., GROVE W. y JULIAN O.; y JULIAN O. y DYE W. S. 7). La oclusión simultánea de la bifurcación aórtica y de los troncos supraaórticos es menos frecuente. Sin embargo, la arteriosclerosis de la aorta puede en raros casos originar la desaparición del pulso en el origen de los grandes troncos que conducen la sangre hacia la cabeza, las extremidades superiores y las inferiores.

Vamos a recopilar a continuación algunos casos publicados a los que añadiremos algunos no publicados.

Caso 1. — (BUSTAMANTE, MILANÉS, CASAS y DE LA TORRE 8).

Un hombre de 52 años fué visto en mayo de 1952. Sufría claudicación intermitente en las piernas y con frecuencia debía interrumpir la masticación por dolor en las mandíbulas. Los brazos se cansaban al menor esfuerzo. El síntoma que más le alarmaba era la pérdida momentánea de consciencia, acompañada de crisis convulsivas.

La exploración mostraba un hombre de aspecto avejentado, sin pulso en las extremidades superiores ni en las inferiores. La presión arterial no podía medirse. No tenía trastornos tróficos en las manos ni en los pies.

Las oscilaciones eran nulas en los brazos. En 1953 sufrió un accidente cerebro-vascular con hemiplejía izquierda de la que fué recuperándose. Enfermo en observación.

Caso 2. — (BUSTAMANTE, MILANÉS, CASAS y DE LA TORRE 8).

Un hombre de 51 años sufría claudicación intermitente de las piernas desde hacía seis años, debilidad de los brazos y posible infarto de miocardio cuatro años antes de su examen.

La exploración mostró atrofia de los músculos fasciales. La pulsatilidad había desaparecido en todas las arterias con excepción de la carótida izquierda y de la femoral del mismo lado. La aortografía abdominal mostró oclusión completa de la ilíaca derecha e incompleta de la ilíaca izquierda.

Ultimamente presentaba además trastornos visuales. Enfermo en observación.

Caso 3. — (ABRAMS, WILLIAM B. y BREWSTER, J. 9).

Un hombre de 66 años ingresó en el hospital por disnea de esfuerzo e hinchazón de las piernas desde hacía un año. En interrogatorio era difícil por el estado mental del paciente. Parece ser que en otro hospital fué diagnosticado de trombosis coronaria.

Exploración: no pudo medirse la presión arterial en los brazos ni en las piernas. El pulso estaba ausente en todas las arterias de los miembros a excepción de la radial derecha y de las dos femorales. El enfermo mostraba trastornos cerebrales graves con episodios nocturnos de agitación. Tenía además incontinencia fecal y urinaria. Falleció al poco tiempo de su ingreso de una complicación respiratoria.

La autopsia demostró acentuadas lesiones de ateromatosis aórtica con úlceras y calcificación. Los tres troncos supraaórticos y las dos arterias ilíacas comunes se hallan ocluídas por un proceso arteriosclerótico con trombosis sobreañadida.

Caso 4. — (ROSS, R. S. y MCKUSICK, V. A. 10).

Una mujer de 52 años de edad presentaba Síndrome de Leriche. La presión arterial en el brazo derecho 170/80 mm. en el izquierdo 110/80 con pulso radial muy débil. Más tarde presentó aneurisma arteriosclerótico de la aorta abdominal.

Caso 5. — (ROSS, R. S. y MCKUSICK, V. A. 10).

Un hombre nacido en 1905 presentaba típico Síndrome de Leriche desde los 32 años. En 1951 la presión arterial en el brazo derecho era 160/110 mm. El pulso radial izquierdo era muy débil. En la fosa supraclavicular izquierda se oía un soplo sistólico rudo.

Caso 6. — (ROSS, R. S. y MCKUSICK, V. A. 10).

Un hombre de 47 años tenía claudicación intermitente desde los 40. Fumaba un paquete de cigarrillos al día. Al ingresar en el hospital no tenía pulso en las piernas ni en el brazo derecho. En el brazo izquierdo la presión arterial era 130/90. El pulso carotídeo era difícil de palpar. Falleció

en el hospital después de presentar convulsiones y parálisis. En la autopsia se halló oclusión trombótica de la aorta desde el tronco celíaco hasta la bifurcación e ilíacas. La subclavia y carótidas en el lado derecho estaban ocluídas por trombos. Los estudios microscópicos mostraron lesiones que podían etiquetarse de ateromatosis.

Caso 7. — (SÁNCHEZ-HARGUINDEY 11).

Enfermo de 64 años. Gran fatiga al andar desde hace algunos años. últimamente guarda cama; no puede andar ni tenerse de pie. Frialdad en piernas y pies.

Exploración: Atrofia extremidades inferiores, no pulso ni oscilaciones en las piernas. Aparecen placas de gangrena en tobillos, rodillas y región sacra: fallece de anuria.

En la autopsia se hallan en toda la aorta intensas lesiones ateromatosas. La bifurcación está ocluída por un trombo antiguo hasta las renales. Las dos renales están obstruídas por trombos más recientes.

A nivel del arco aórtico existen también intensas lesiones ateromatosas. Su parte convexa, donde emergen los troncos supraaórticos está dilatada como si iniciara un aneurisma sacular. Abierta la aorta y examinada por dentro la porción convexa muestra un fondo de saco lleno por un trombo con tres orificios (fig. 1). Al arrancar el trombo aparecen los orificios aórticos de los tres troncos más bien dilatados con placas y úlceras ateromatosas.

Fig. 1 — Esquema de los hallazgos necrópsicos correspondientes al caso número 7.

Caso 8. — (MARTORELL, F.).

Un hombre de 51 años fué visto por vez primera en 1953. Presentaba desde hacía cuatro años intensa claudicación intermitente en las piernas que apenas le permitía andar. Tenía gran frialdad en los pies e intenso dolor nocturno en el del lado derecho, lo que le obligaba a dormir con la pierna colgando. La exploración clínica demostró que se trataba de un típico caso de Síndrome de Leriche con desaparición del pulso y oscilaciones en las dos extremidades inferiores e impotencia sexual. Tratado con tionato cálcico y Esplenhormón, desapareció pronto el dolor nocturno, pudo dormir en posición horizontal, mejoró su potencia sexual y pudo andar una distancia mucho mayor.

Durante cinco años se mantuvo bien habiendo reanudado su vida habitual. En 1958 está muy bien de las piernas aunque no puede apreciarse pulso periférico y no existen oscilaciones. En el brazo izquierdo ha desaparecido el pulso radial y cubital. Las oscilaciones en este lado están muy disminuídas. Existe un soplo sistólico intermitente en la región supraclavi-

cular izquierda. No se queja del brazo sino de intensa disnea de esfuerzo. El paciente se halla en observación.

Caso 9. — (MARTORELL, A.).

Hombre de 61 años, diabético. Visto por vez primera en mayo 1953. Después de tres años padeciendo claudicación intermitente, aparece necrosis del pie derecho y dolor nocturno. En ambas extremidades inferiores no existe pulso ni oscilaciones. Se practica simpatectomía lumbar y amputación de los dedos necrosados. Alta de la clínica a las dos semanas. En 1954 se desarrolla una gangrena del pie siendo preciso amputar a nivel de muslo. En 1958 se encuentra bien, siendo negativos los pulsos no sólo de las femorales sino también de la extremidad superior izquierda. Pulsos carotídeos presentes. Se ausculta un soplo sistólico en ambos lados por encima del esternón. Su única molestia se limita a un síndrome de Raynaud en la mano derecha. El paciente se halla todavía en observación.

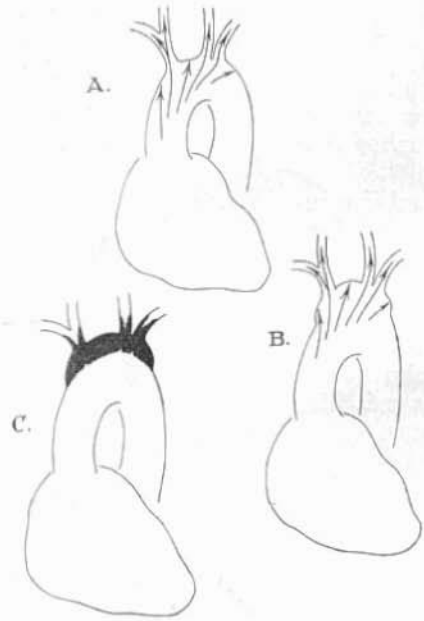

Fig. 2. — Representación esquemática de uno de los mecanismos etiopatogénicos de la oclusión trombótica de los troncos supraaórticos en la ateromatosis.

COMENTARIO

ROSS y MCKUSICK en su recopilación sobre «Aortic Arch Syndromes» llegan a la conclusión de que la ateromatosis es sorprendentemente rara como factor etiológico primario. Desde luego, su recopilación es incompleta ignorando que el primer caso publicado en 1944 en el mundo occidental por uno de nosotros era originado por la arteriosclerosis. Posteriormente otros trabajos van incrementando el número de casos de esta etiología. Mientras la llamada enfermedad de Takayasu constituye una arteritis de las mujeres jóvenes, la arteriosclerosis constituye un factor etiológico de día en día más frecuente en los hombres que sufren un síndrome de obliteración de los troncos supraaórticos.

La oclusión crónica aortoilíaca es enfermedad relativamente frecuente, puede ser debida a la tromboangeítis pero con mayor frecuencia se debe a la arteriosclerosis.

En raros casos la arteriosclerosis de la aorta ocluye simultáneamente los troncos supraaórticos y las dos ilíacas. Uno de nosotros publicó, en 1947, un caso particularmente interesante de arteriosclerosis de la aorta con oclusión trombótica de su bifurcación (Síndrome de Leriche) y trombosis parietal del arco aórtico a nivel de la emergencia de los tres troncos supraaórticos (fig. 1). Este trombo que llenaba una zona deprimida del borde

convexo de la porción horizontal del cayado se hallaba tunelizado de forma que la sangre podía seguir circulando por los tres troncos supraaórticos, los cuales se hallaban más bien dilatados y ateromatosos.

Estos hallazgos necrópsicos permiten suponer que en principio las lesiones ateromatosas de la porción horizontal de la aorta debilitan la pared (fig. 2 A) y ésta cede ante la presión de la onda sistólica (fig. 2). A esta depresión aórtica con lesiones de ateroma se le sobreañade una trombosis parietal. Esta trombosis al ocupar el origen de los tres troncos supraaórticos puede cerrar simultáneamente los tres a la circulación de la sangre (fig. 2 C). De esta manera se explicaría la desaparición del pulso y oscilaciones en carótidas y subclavias. WARREN y TRIEDMAN (12) han publicado un esquema semejante.

En otros casos existen formas incompletas de este síndrome, bien porque cierren las subclavias y respeten las carótidas, bien porque cierren carótida y subclavia de un solo lado (Hemi-Martorell's Syndrome, de Sir JAMES LEARMONT 13).

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(ENGLISH TEXT)

ARTERIOSCLEROSIS OF THE AORTA WITH THROMBOTIC OCCLUSION OF THE MAIN TRUNKS

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Diseases of the aorta associated with disminished of absent pulses in the extremities have received considerable attention in the recent medical literature. Arteriosclerotic occlusive disease of the terminal aorta, also termed Leriche's syndrome (MOREL), chronic aorto-iliac thrombosis (MARTORELL and VALLS-SERRA), or insidious thrombosis of the aorta (ELKIN) is not infrequently responsible for impairment of the pulses in the lower extremities. Mora recently, attention has been directed toward the arteriosclerotic occlusive disease of the branches arising of the aortic arch also termed pulseless disease (SHIMIZU) or Martorell's syndrome of the aortic arch (DA COSTA y MENDES FAGUNDES, DAVIS J., GROVE W., and JULIAN O.). The simultaneous impedance of the blood flow to both the upper and lower extremities is less common. But arteriosclerosis of the aorta is sometimes of such severity that the arteries to all four extremities and the head were completely occluded. As a result there was absent of feeble pulses in the neck, arms, and legs and an absent measurable blood pressure in the arms and legs. Leriche's and Martorell's syndrome are present in a same patient.

This review is based on an analysis of over 9 cases of this syndrome, of which 2 have not been previously reported.

Case 1. — (BUSTAMANTE, MILANÉS, CASAS and DE LA TORRE).

L. F. V., 52 years, seen in May, 1952. He had suffered for some years, he could not remember how many, from intermittent claudication of the lower limbs and intense burning sensations in the soles without ever being aware of color changes, temperature or trophic lesions. For some months past he had begun to notice tiredness in the jaw after masticating a short time, which continually interrupts his feeding. In addition, he mentioned that his upper limbs tired easily when performing any excercise. Finally, the matter which alarmed him most was a momentary loss of consciousness on arising, and convulsive crises localized in one limb or in both limbs on the same side without loss of consciousness. These lasted some minutes only, but occurred up to 8 times a day. There was cloudy vision. He amoked 4 cigars daily.

On physical examination we found a thin individual who looked older than he really was. During the examination we had the opportunity of witnessing one of the localized convulsive crises above referred to, which was not accompanied by hypotension of bradycardia. There was no atrophy of the facial muscles. The teeth were in bad shape. The apex of the heart was not displaced. There was a reinforced aortic systolic murmur grade 2. It was not possible to feed any peripheral pulse, either radial, humeral, axillary, temporal, carotid, femoral or pedal on both sides, and only the pulsations of the abdominal aorta could be felt. The blood pressure could not be obtained. There were no trophic disorders of the extremities nor changes of color or temperature.

The cardiac ares was normal to the fluoroscopic examination, the aorta showing a moderate atheromatosis. The electrocardiogram was within normal limits. At the

ocular fundus there were signs of arteriosclerosis and increase in venous caliber. In the left eye there were aneurysmal dilatations, rounded and punctiform, in many arterial terminations. There was no cataract.

The electroencephalogram was abnormal, and showed moderate cortical damage towards the left frontal region.

The oscillogram registered an absence of oscillations in the lower limbs and extreme diminution in the upper. Cholesterol 442 mg. Phospholipids 232 mg. The other examinations were normal. The patient was treated with vasodilators and endovenous heparin with some improvement of his symptoms. Particularly, the convulsive crisis became less frequent. In November, 1953, a left hemiplegia appeared which later partially remitted. A new ophtalmic examination now showed a cataract on the left eye, and recent venous hemorrhages in the right eye. The patient is still under observation.

Case 2. — (BUSTAMANTE, MILANÉS, CASAS and DE LA TORRE).

M. V. S., white, 51 years, clerk. For the part 6 years he had suffred from intermittent claudication of both the lower limbs which prevented him from walking more than 200 meters. At the same time he suffered from impotence, dizziness and paresthesia in the two upper limbe. Four years ago he had had an intense precordial pain radiating to the left shoulder which lasted 4 hours and was accompanied by sweating, transitory loss of consciousness and aphasia. Thia accident was considered as a probable high lateral myocardial infarct.

In the physical examination we found: a tall individual with general diminution of adipose tissue and muscles. There existed an evident atrophy of the facial muscles. The only pulses perceptible were the left carotid and femoral with a wead pulsation; all other pulses were absent. Arterial tension was not obtainable in the telecardiograma. At the ocular fundus only marked signs of arteriosclerosis were found. There were no trophic disorders in the extremities. The nervous system was normal. The electrocardiogram showed a T wave inverted in a VL. Oscillometry gave minimum oscillations in the left leg and thigh.

Abdominal aortogram: aorto-iliac thrombosis with partial obstruction at the origin of the left iliac and total obstructions of the right iliac. Biopsy: left humeral artery, normal.

The intermittent claudication has progressively become more marked, the patient has undergone changes of personality and shows some visual disorders (lessening of clearness of sight). The patient is still under observation.

Case 3. — (ABRAMS WILLIAM, B. and BREWSTER, J.)

A 66-year-old white man was first admitted to the East Orange Veterans Administration Hospital on Nov. 17, 1954, for dyspnea on exertion and swelling of the legs of one year's duration. History was obtaind chiefly from a relative because of the patient's mental limitations. He had been well until two years prior to admission, when he developed chest pain and was admitted to another hospital, where a diagnosis of a coronary thrombosis was made. He subsequently had two brief admissions to a second hospital for coronary insufficiency. He did fairly well then for about one year until dyspnea, orthopnea, nocturnal dyspnea, dependent edema, paroxysmal chest pain, chronic cough, and mental deterioritation appeared and progressed until they collectively became incapacitating despite tratment.

Pertinent physical findings were as follows: The blood pressure was not obtainable in the arms and legs. All arterial pulses were absent except for weak pulsations of the right radial and both femoral arteries. The ocular fundi showed changes characteristic of arteriosclerotic retinopathy. There were no pulmonary

rales on admission. The heart was enlarged to the left to percussion and was beating with a slow irregular rhythm. A short Grade 2 highpitched systolic murmur was heard on each side of the upper sternum. The liver was moderately enlarged, and evidences of ascites were present. A reversible complete indirect right inguinal hernia was present. There was 4 + bilateral pitting edema of the legs up to the knees. Neurologic examination was not remarkable, but questioning revealed markedly slowed mentation, confusión, and loss of memory. During his hospital stay he was mostly docile and increasingly apathetic, but occasionally he developed nocturnal episodes of agitation, disorientation, and overactivity. Fecal and urinary incontinence were constant problems.

On April 12, 1955, a fever developed, and the pulmonary rales became more prominent. A chest x-ray showed only marked cardiac enlargement and pulmonary congestive changes. There was no localized pneumonic process or pleural effusion. Although the fever disappeared after the administration of penicillin, dyspnea, Cheyne-Stokes respiration, and intermittent cyanosis developed. Oxygen was administered. At this time there was no dependent edema, and the lungs were remarkably clear. Blood electrolyte values at this stage were as follows: Sodium, 140 mEq. per liter; chlorides, 106 mEq. per liter, and CO_2 24 mEq. per liter. The patient died on April, 19, 1955. Permission for postmortem examination, exclusive of the head, was obtained.

The significant findings at autopsy were as follows: The heart weight 650 gm. and showed hypertrophy and dilatation of all chambers. The ostia of the coronary arteries were narrowed by atherosclerotic plaques in the sinuses of Valsalva.

The entire aorta showed and advanced atherosclerosis, with ulceration and calcification. The lumen was reduced to a narrow irregular passage in the arch region by an annular zone of calcification involving 2,5 cm. of the vessel. This coral-like calcium deposit obstructed the ostia of the innominate and left common carotid arteries and partially obstructed the left subclavian artery. The proximal portions of these vessels were stony hard and the lumina obliterated or reduced to narrow slits by a similar advanced atherosclerosis with calcification, ulceration, and in areas, thrombosis. Microscopically, these thrombi showed early organization.

The lumen of the distal 9,5 cm. of the aorta and the proximal portion of the common iliac arteries were obstructed by thrombi adherent to the underlying ulcerated atheromatous plaques. These thrombi showed various stages of organization; the central zones in the earlier stages, and the peripheral aspects in the more advanced stages.

Case 4. — (Ross, R. S. and McKusick, V. A.).

J. F. (J. H. H. 170371) was a white woman with Leriche's syndrome, which was fully developed when she was first observed at this hospital, in 1939, when she was 52 years old. The blood pressure in the right arm was 170/80 mm. Hg., and in the left arm 110/82, with barely palpable left radial pulse. By 1946 clear signs had developed of an aneurysm, presumably arteriosclerotic, of the abdominal aorta.

Case 5. — (Ross, R. S. and McKusick, V. A.).

J. P. (J. H. H. 184964), a white man born in 1905, was demonstrated by aortograms to have Leriche's syndrome of thrombotic occlusion of bifurcation of the aorta. Claudication began at age 32, and impotence in the form of inability to maintain a stable erection began at the age of 36 years. In 1951 the blood pressure in the right arm was 160/100 mm., and in the left arm 125/110. The left radial pulse was feeble. In the left supraclavicular fossa and to a lesser extent under the clavicle a rough systolic bruit was heard. The basis of the premature atheromatosis appeared to

be idiopathic hypercholesterolemia; serum cholesterol levels were 355 to 422 mg. per 100 cc. and there were xanthelasmata of the upper eyelids. After the patient's close adherence to a low-fat diet for 28 months serum cholesterol levels fell to as low as 220 mg. and there was partial alleviation of symptoms in the lower part of the body; the pulse abnormality in the left arm remained unchanged.

Case 6. — (Ross, R. S. and McKusick, V. A.).

W. W. (J. H. H. 198291), a plumber of German extraction, had onset of progressive intermittent claudication in the legs at the age of 40. He smoked a pack of cigarettes a day. At the age of 47 he was admitted to the hospital, where it was found that there were no pulses not only in both legs but also in the right arm. The blood pressure in the left arm was 130/90. Carotid pulses were felt only with difficulty. While in the hospital the patient had a left-sided convulsion followed by one on the right side, bilateral paralysis, and death. Posmortem examination revealed thrombotic occlusions of the aorta from the celiac axis to the bifurcation, with extension of the occluding process in to the iliac arteries. All the main branches of the arch of the aorta showed pronounced sclerotic changes. The second portion of the right subclaviam artery was occluded, and there were separate thrombotic occlusions of both the internal and the external carotid arteries on the right. Microscopic study of the blood vessels showed thickening of the intima, organized and partly recanalized thrombi with nonstaining pigment, and in places enormous amounts of fat in phagocytes, but there were no striking inflammatory changes. The arteries and veins were not bound together as in Buerger's disease. Although there was no calcification, cholesterol crystals were in abundance in places.

By definition this case represents Leriche's syndrome with certain additional features referable to changes in the upper portion of the body.

Case 7. — (Sánchez Harguindey).

A sixty four old male. He gave a history of several years duration of easy fatigability. Lately he is obliged to rest in bed, he was unable to walk or stand.

Exploration: Pulsations of the abdominal aorta were absent below the umbilicus. All pulses in the lower extremities were absent. Severe athrophy of the lower extremities. Three months to examination he developed areas of gangrene on the ankles, knees, sacral region, and toes. He died from anuria.

The autopsy showed marked atheromatosis of the totality of the aorta. The bifurcation was occluded by a superimposed thrombus, which extended upwards, up to the renal orifices. More recent thrombus filled both renal arteries.

The aortic arch presented also severe atheromatosis lesions. The convexity at the level of the origin of the three supraortic branches is depressed like a sacular aneurysm.

After the opening of the aorta the depressed portion was found filled by a thrombus tunnelized by three orifices. Once the thrombus detached the three trunks appeared distended with atheromatosis plaques and ulcers.

Case 8. — (Martorell, F.).

E. M., 51 years of age, is seen for the first time, the 20-II-53. Four years ago he had paralysis of both legs and since the intermittent claudication appeard that enabled him to walk 10 meters. For some months he had coldness of his feet and intense nocturnal pain in his right foot that impelled him to sleep with the feet in a dependent position. Examination showed absence of pulses and of oscillometric readings in both lower extremities. The blood pressure was 165/100. He was treated with calcium thionate and esplenhormon. He improved rapidly and could walk long

distances. The nocturnal pain disappeared, and his sexual potency improved. One year later he was feeling quite well.

The patient has been carried along for five years under medical treatment, and was able to continued his activities. The 17-III-58 was seen again. He was very well from his legs, although no pulses or oscillations could be detected in either lower extremities. The ulnar and radial pulses disappeared on the left arm. The oscillations were disminushed. Systolic murmur was heard on the left side of the upper sternum. He had permanent dyspnoea, and this was the reason of coming to be visit. He didn't had any discomfort on his arm. The patient is still under observation.

Case 9. — (MARTORELL, A.).

A. P., a diabetic man, 61 years old is seen for the first time in May 1953. After three years suffering intermittent claudication, ischemic necrosis on his right foot and nocturnal pain, appeared. In both legs no pulses or oscillations could be detected. Lumbar sympathectomy and amputation of the necrotic finger was performed. He was discharged from the hospital after two weeks. In 1954 gangrene of the foot develops and the leg was amputated at the tigh level. In 1958 he is quite well. There were no pulses not only in both femorals but also in the left arm. Carotid pulses were felt. Systolic murmurs were heard on the both sides of the upper sternum. The only discomfort was Raynaud phenomen in the right hand. The patient is still under observation.

Ross and MCKUSICK in their extensive review on Aortic Arch Syndromes concluded that, atheromatosis is surprisingly uncommon as a primary cause. Nevertheless, arteriosclerotic cases with thrombotic occlusion of the supraortic branches are more and more published in medical literature. Takayasu's disease is an arteritis of young women more similar to thromboangitis and is accompanied by ESR elevation and, as a rule, pyrexia.

Chronic aortoiliac occlusion is frequently present and can be due to thromboangiitis, and more frequently to arteriosclerosis.

In few instances aortic arteriosclerosis simultaneously occlude the supraortic branches and both iliacs. One of us published in 1947 a very interesting case of aortic arteriosclerosis with thrombotic occlusion of the bifurcation (Leriche's syndrome) and parietal thrombosis of the aortic arch at the origin of the three supraortic trunks The thrombus filled a depressed area of the horizontal convex of the aortic arch. The thrombus was found tunnelized, allowing the blood flow through the three supraortic trunks; which were distended and atheromatous. This added parietal thrombosis, could explain the simultaneous occlusion of the three supraortic branches and the apparition of the syndrome of occlusion of the three supraortic branches. ARREN and TRIEDMAN have published a similar diagram.

In 1954 BUSTAMANTE and collaborators for the first time call attention on simultaneous thrombotic occlusion of the aortic bifurcation and supraortic trunks.

In 1957 ABRAMS and BREWSTER published the autopsy of a case of aortic arteriosclerosis with occlusion of the same trunks.

We added to the mundial literature, two cases of arteriosclerosis with Leriche's syndrome which have been followed for several years and have started the occlusion of the left subclavian and carotid arteries; syndrome called by Sir J. LEARMONTH, Hemy-Martorell's syndrome.