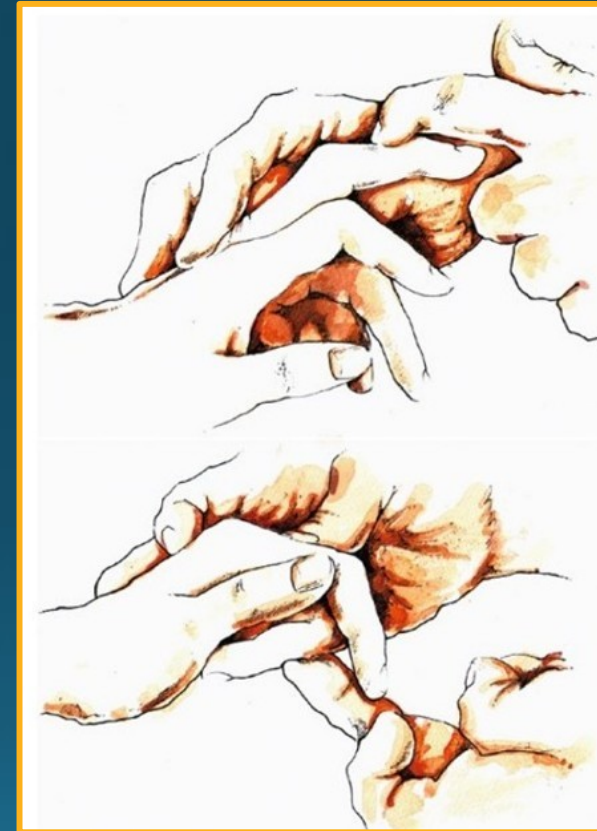
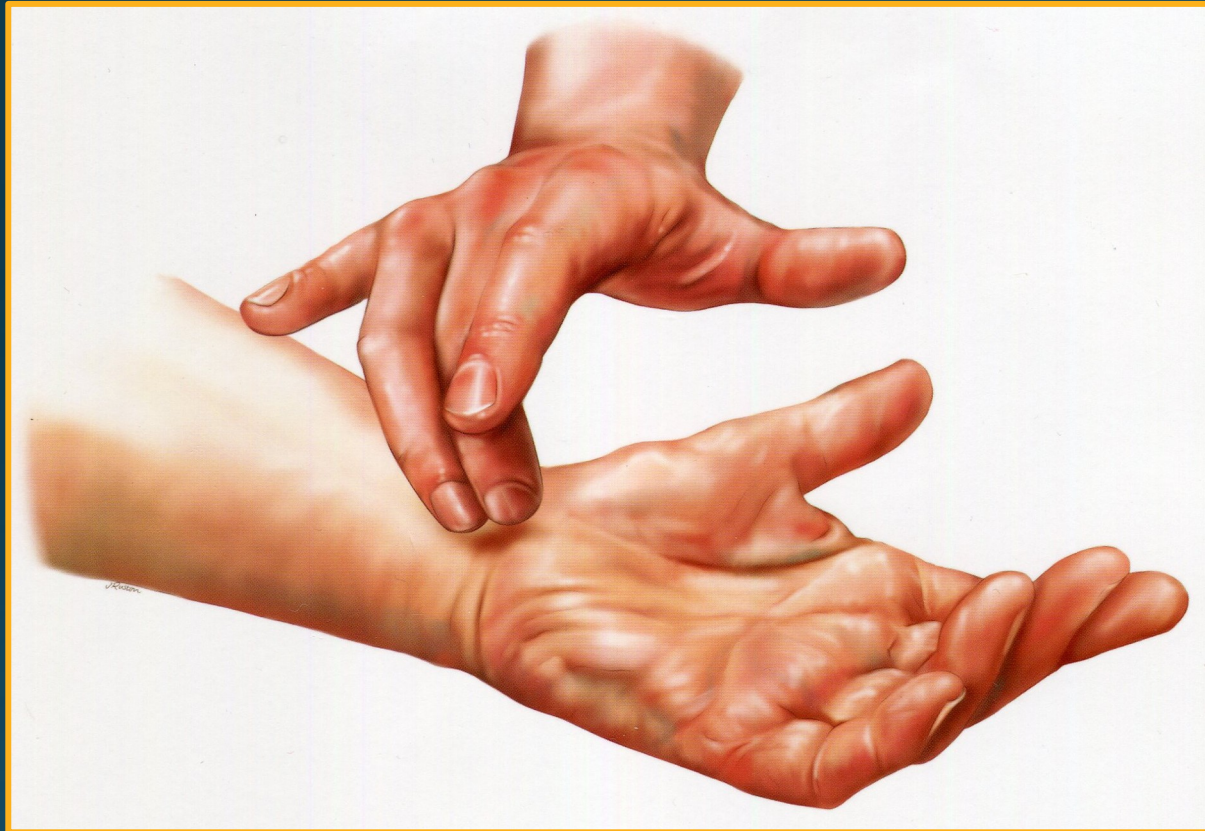


Fisioterapia en las lesiones de la EXTREMIDAD SUPERIOR



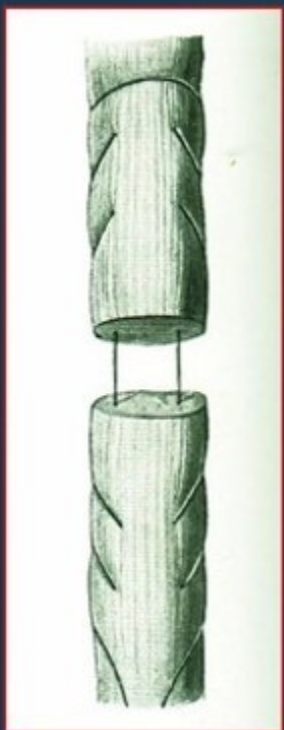
Pablo BLANCO

VALORACIÓN de la HISTORIA CLÍNICA del PACIENTE y EXPLORACIÓN



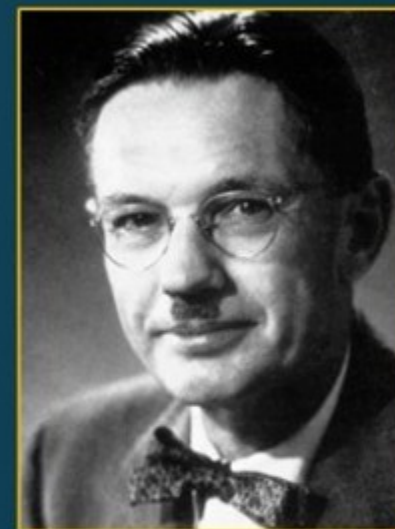


FISIOTERAPIA en la MANO y MUÑECA



Evolución de un tendón flexor tras su sutura

- Se debilita durante las 2 primeras semanas.
- A partir de la 3ª semana experimenta un aumento gradual de resistencia.
- La resistencia del tendón irá aumentando progresivamente al someterlo a esfuerzos.



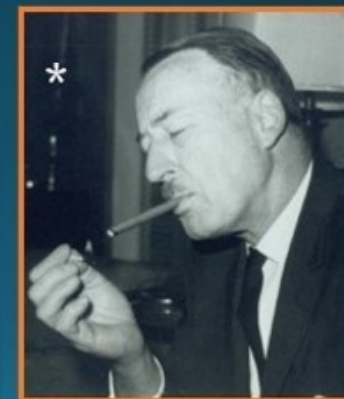
Michael L. Mason
& Allen . 1941



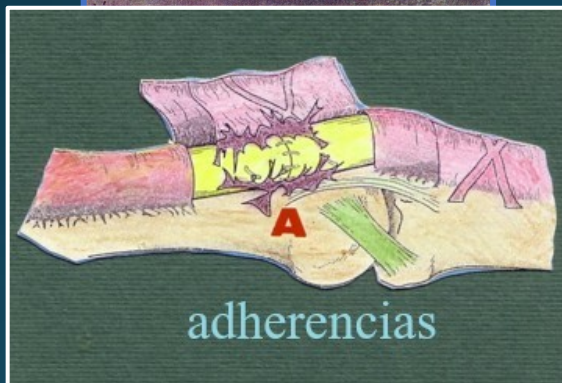
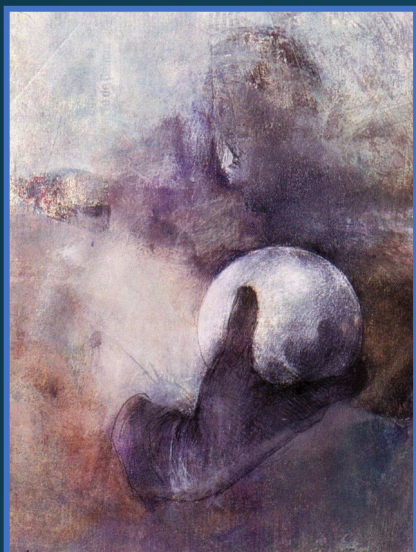
BUNNELL

'Formal physiotherapy is useless, and personally directed exercises to an intelligent patient will suffice' (BOYES)1971*

La fisioterapia 'formal' es innecesaria. A un paciente inteligente es suficiente indicarle que ejercicios tiene que hacer. BOYES,1971

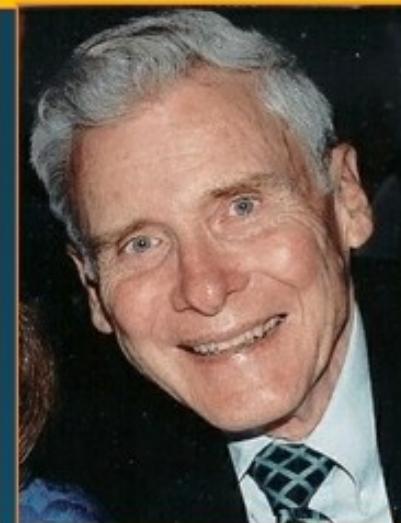


BOYES



El futuro de la Cirugía de los Tendones Flexores

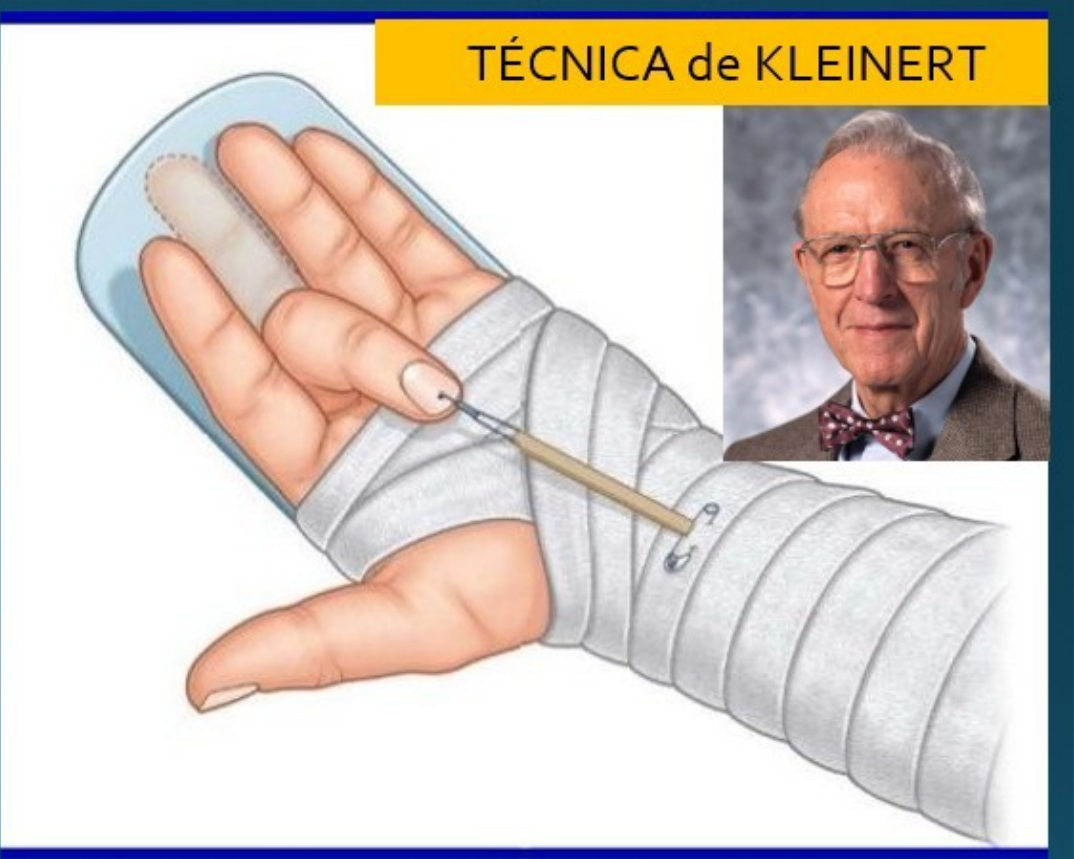
La cirugía de los tendones flexores de la mano sigue siendo un reto difícil. La profecía de PEACOK en 1965, considerando que en una década el problema de las adherencias tendinosas estaría solucionado, no se cumplió. La farmacología intentando controlar la cicatrización tendinosa ha sido un intento fracasado. Aun así, al menos es una cirugía a la que se le tiene más respecto que en tiempos pasados, en los que cirujanos sin apenas preparación, se atrevían a realizar suturas e injertos tendinosos, que estaban condenados de antemano al fracaso.



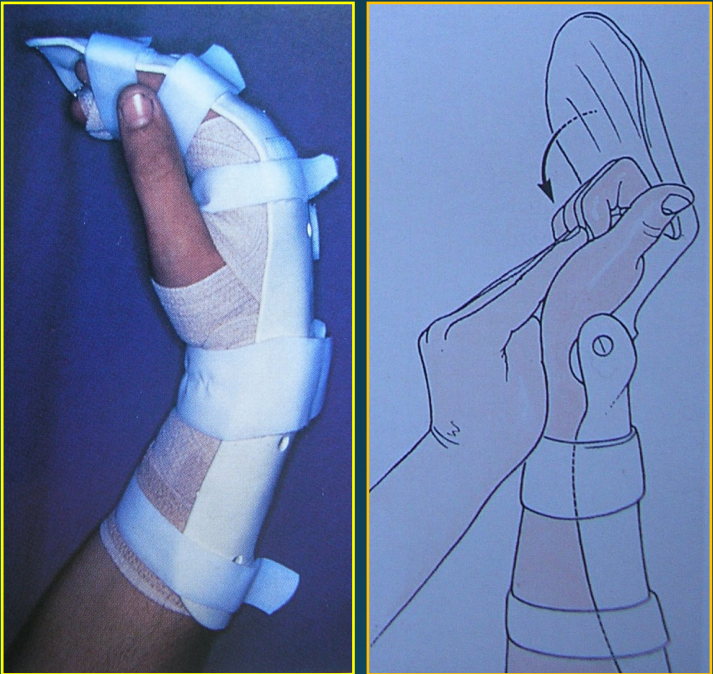
*'Surgery and
biology of
wound repair'*



Tracción elástica tras la sutura del tendón FPL. Protección con una férula dorsal de yeso.



TÉCNICA de KLEINERT

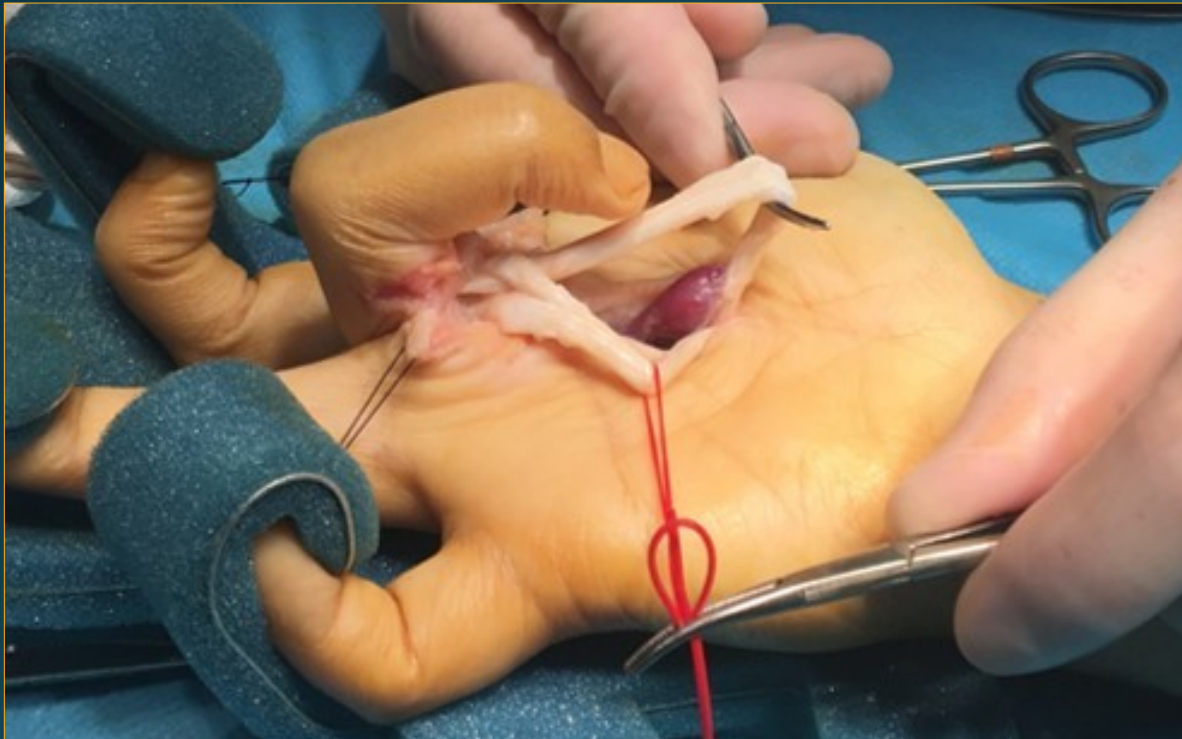


*Duran RJ & Houser
J Hand Surgery, 1976*

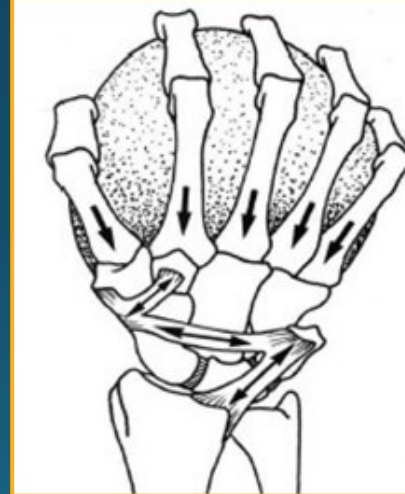
Férulas de limitación de la extensión, permitiendo la flexión



REHABILITACIÓN TRAS HACER UNA TENOLISIS DE LOS TENDONES FLEXORES



EJERCICIOS DE
POTENCIACIÓN DE
LOS MÚSCULOS
DEL ANTEBRAZO



FRACTURAS de FALANGES y METACARPIANOS

non-operative treatment....
...does NOT mean
“no treatment”



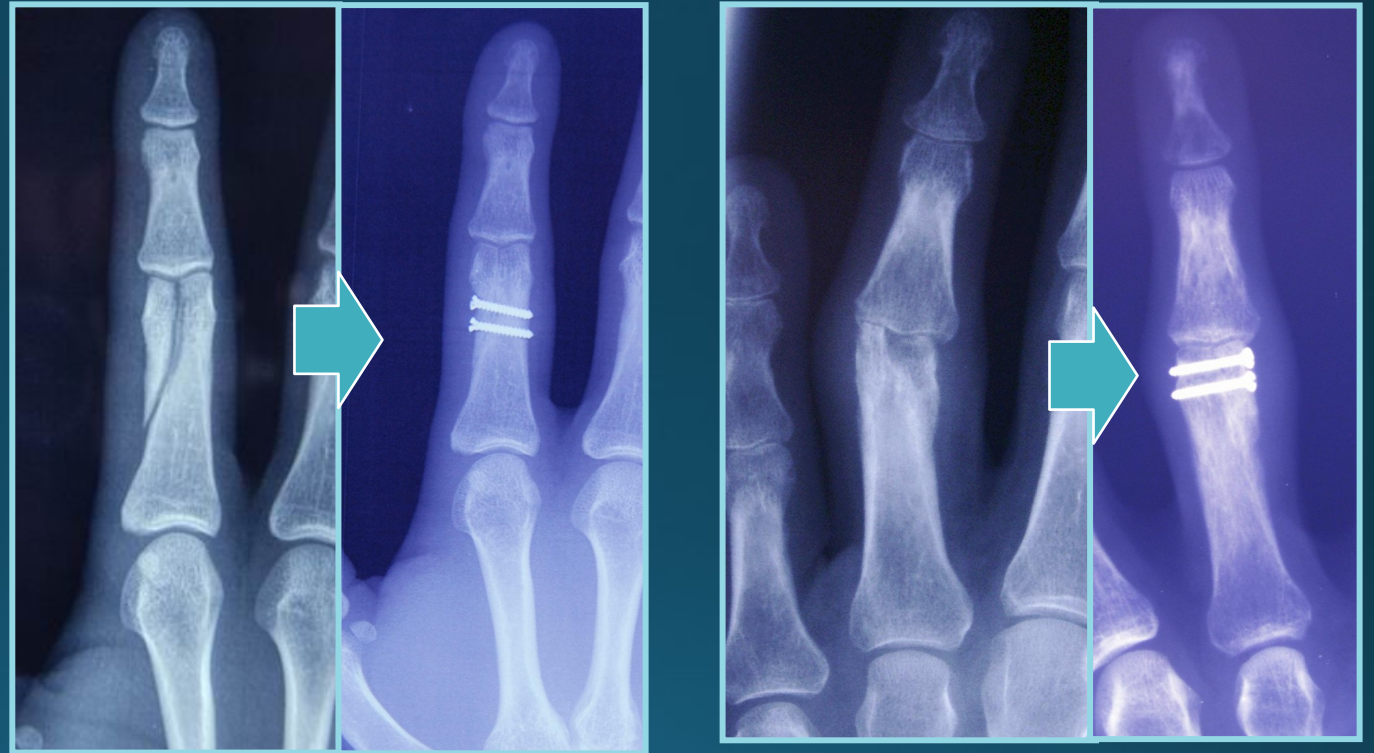
El 'tratamiento conservador' no es equivalente
a un tratamiento pasivo y descuidado.

En las fracturas tratadas con una férula, cómo y cuándo iniciar la fisioterapia, debe consensuarse entre el traumatólogo y el fisioterapeuta.

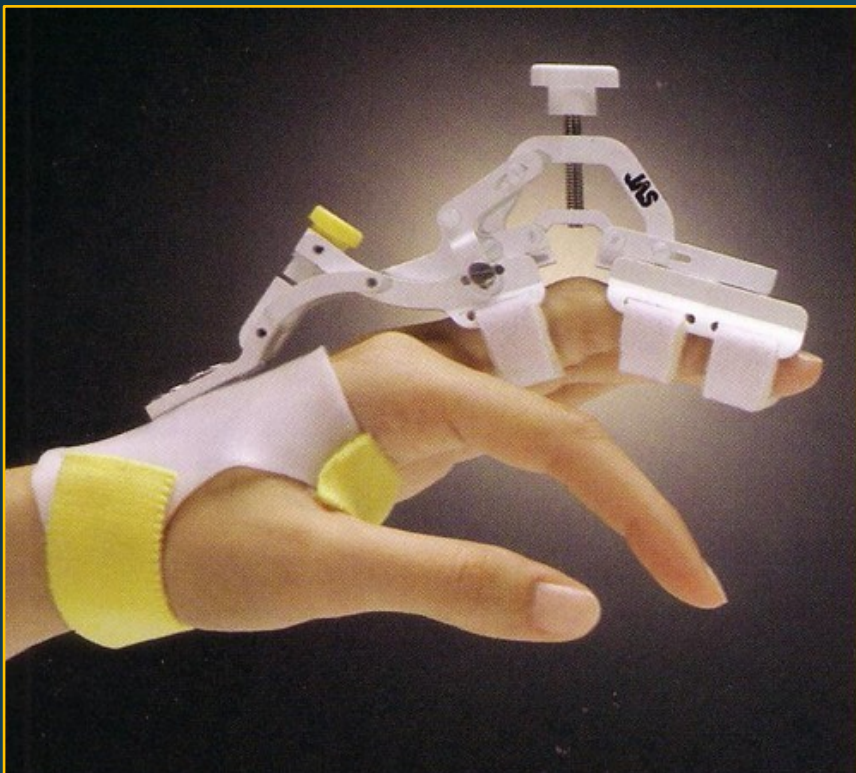


MOVILIZACIÓN PRECOZ...
y CUIDADOSA iii

En las fracturas tratadas mediante osteosíntesis, al menos el 50% del resultado depende de una fisioterapia adecuada.



Ortésis con una excesiva complejidad

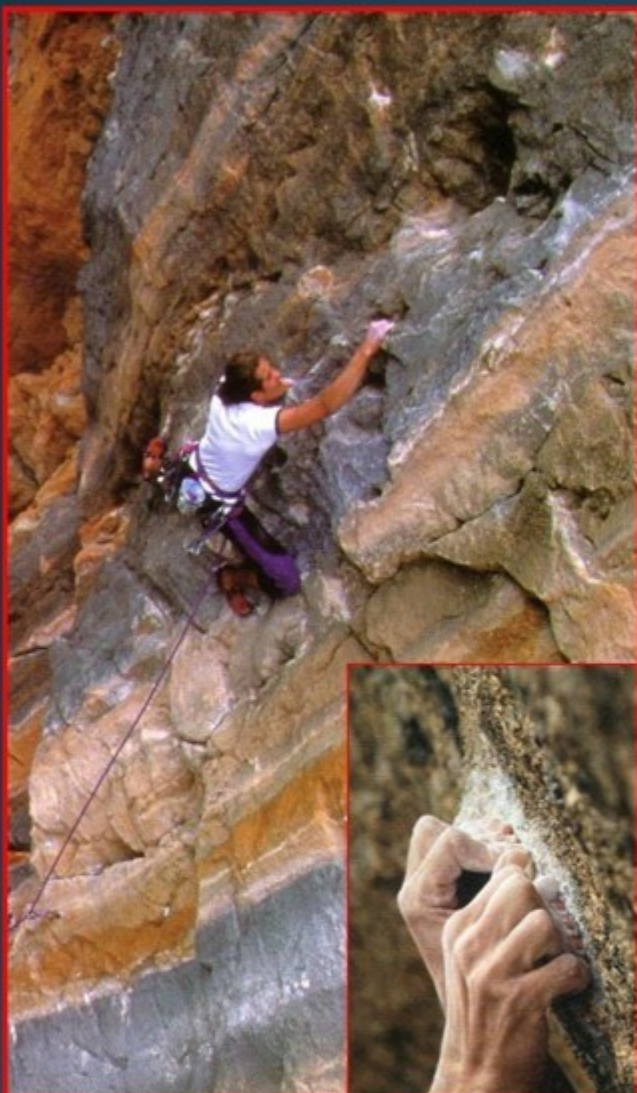


Luxación Dorsal IFP

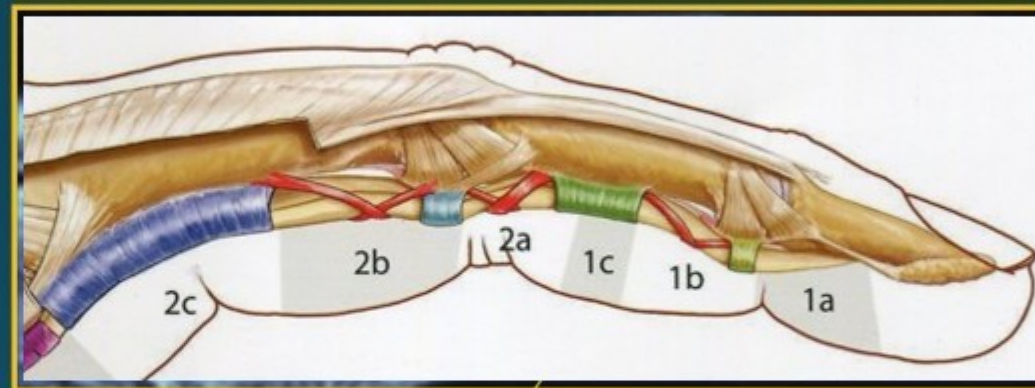
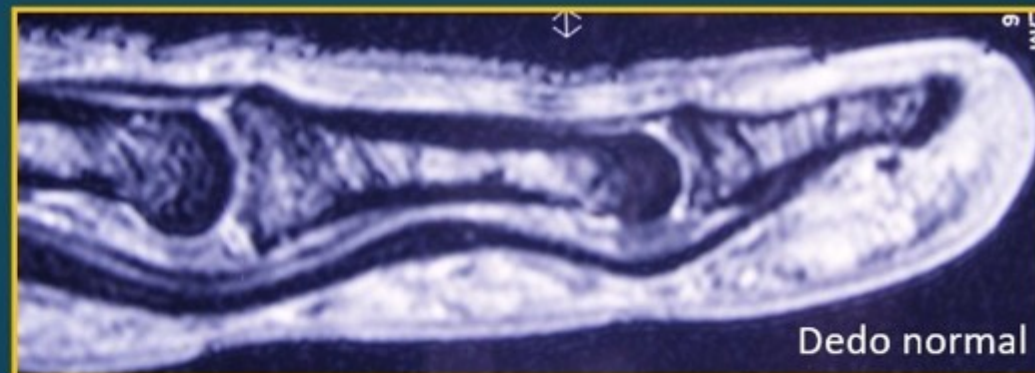


Lesión del Ligamento Colateral IFP

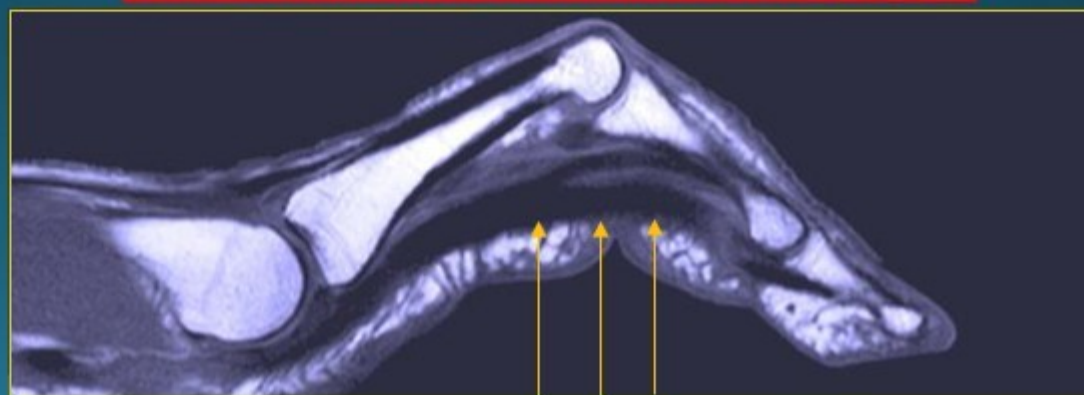




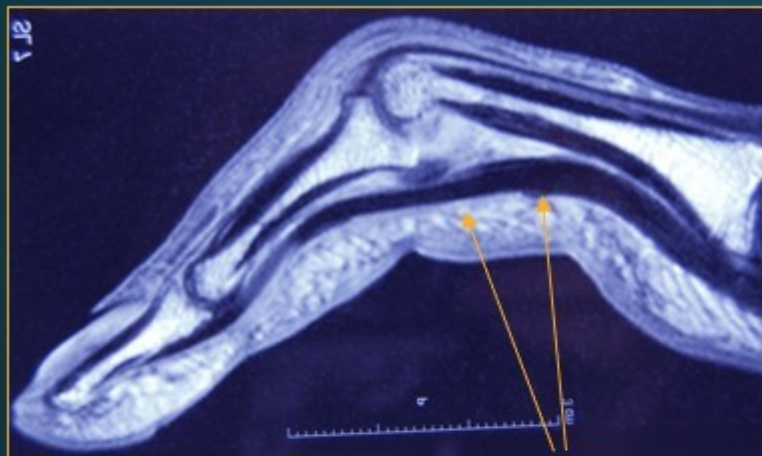
*DEDO del ESCALADOR
ROCK CLIMBERS*



ROTURA de POLEAS DIGITALES



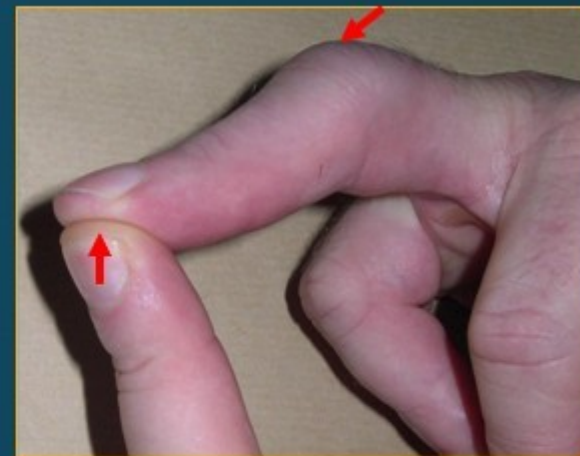
LESIÓN de las POLEAS de los TENDONES FLEXORES y su TRATAMIENTO



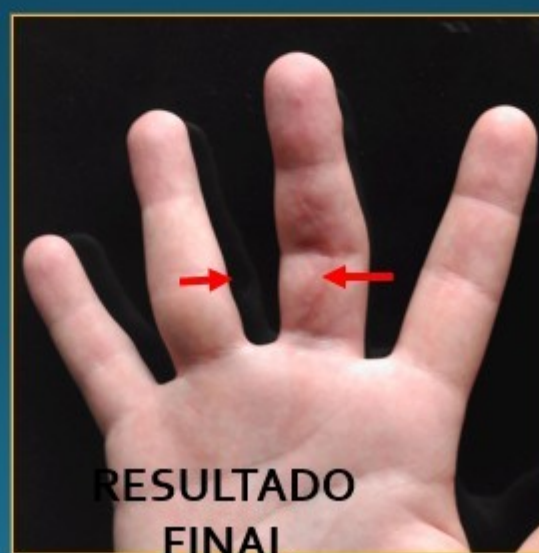
Desplazamiento volar TF



Flexión residual y corrección parcial con la extensión pasiva

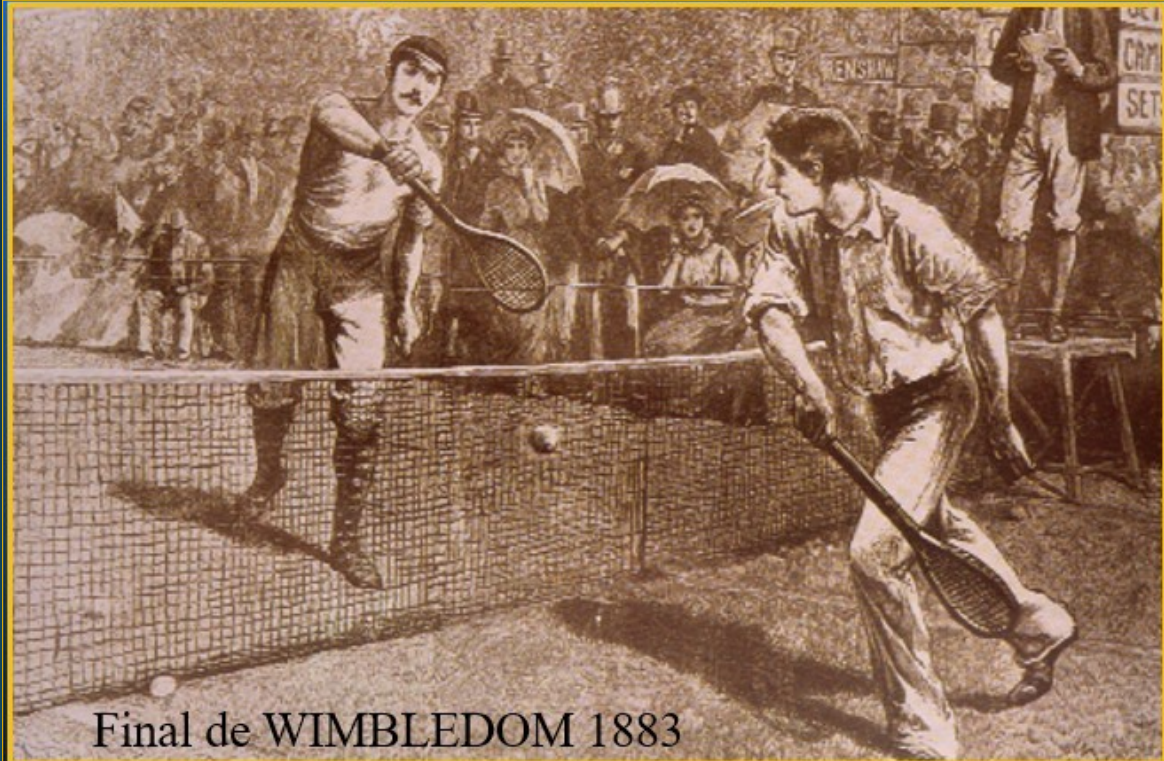
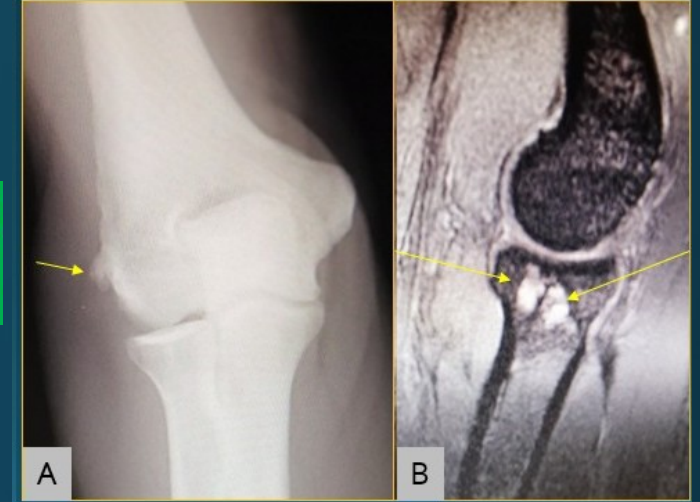


- PACIENTE COLABORADOR
- VIGILANCIA CONTINUADA
- REHABILITACIÓN CUIDADOSA



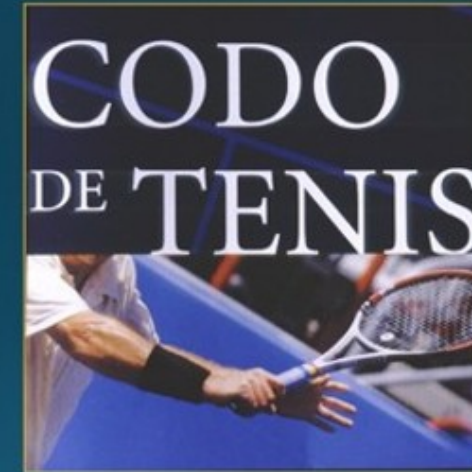


'TENNIS ELBOW' MAJOR, 1883 British Medical
'LAWN-TENNIS ELBOW', WINCKWORTH " "



Final de WIMBLEDOM 1883

'RADIAL TUNNEL SYNDROME.
RESISTANT TENNIS ELBOW AS A NERVE ENTRAPMENT'



ROLES & MAUDSLEY - J. Bone Joint Surg Br - 1972



EPITROCLEITIS



Artrrosis
grado 1



Artrrosis
grado 2

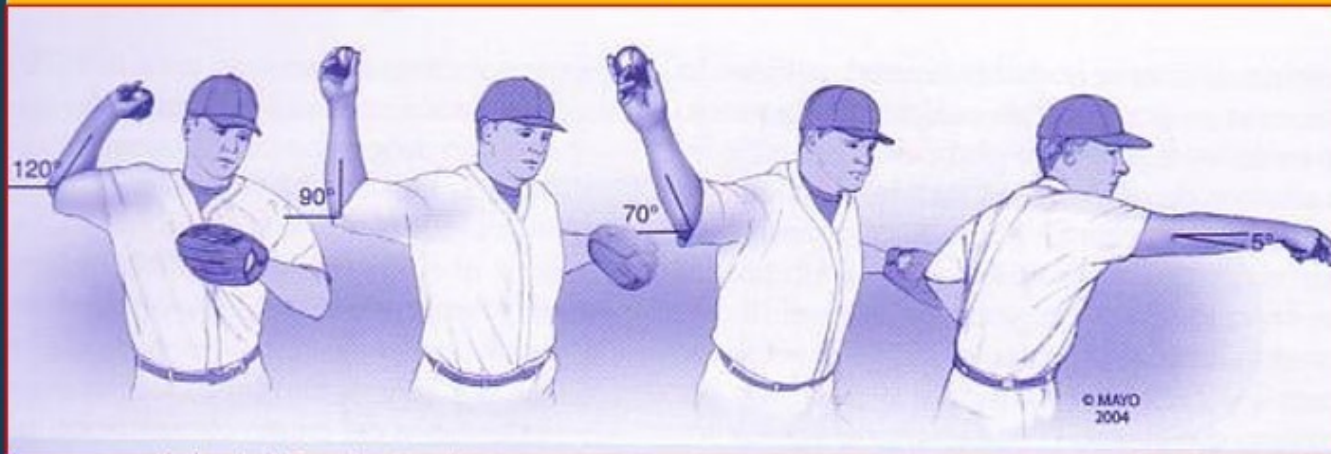


Artrrosis
grado 3

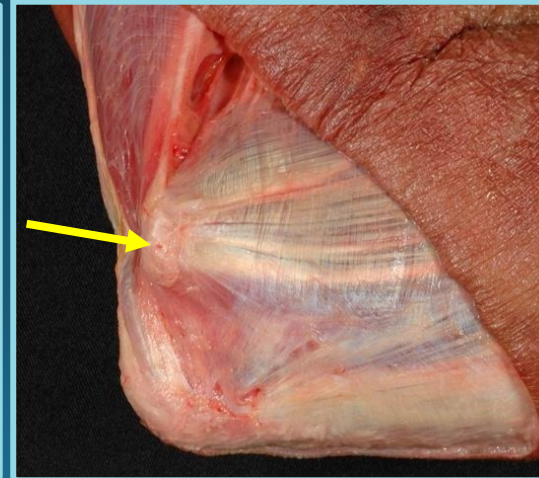


'baby Ruth' - 1914

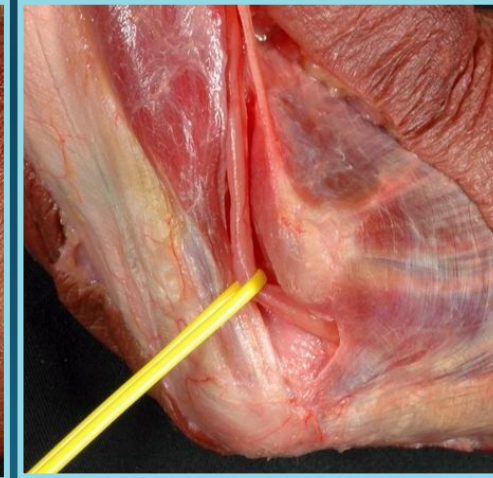
thrower's elbow ('codo del lanzador')



LIGAMENTOS



TENDINOPATÍA de INSERCIÓN



NEUROPATÍA CUBITAL



NOTES DE MÉDECINE PRATIQUE

René LERICHE

A propos du traitement
par infiltration novocaïnique
de l'épicondylite des joueurs de tennis,
des maladies post-traumatiques
de même ordre,
des soi-disant apophysites de croissance,
de certaines fractures
sans déplacement
et des séquelles ostéo-articulaires

Dans La Presse Médicale du 27-11-1935
Raphaël Massart rapporte les résultats que lui
a donnés l'injection de percaïne dans l'épicon-
dylite des joueurs de tennis.

Je voudrais souligner l'efficacité de ce traite-
ment dans toutes sortes d'affections de même
type qui sont observées chez les sportifs et qui
les gênent considérablement.

Le premier cas qui fut ainsi traité, en 1928,
était une épicondylite chez un professeur d'es-
crime qui ne pouvait plus tirer. Il fut infiltré
par mon aide d'alors, le Liégeois Orban, élève
de Delrez. L'escrimeur fut guéri par deux
injections et l'est resté.

hypotonies, des hypertonies. J'en ai publié des
exemples, notamment dans La Presse Médicale,
et dans le Lyon Chirurgical, qui montrent ce
que l'on peut obtenir dans des cas désespérés.

A diverses reprises, mes aides et moi avons fait
des infiltrations capsulaires dans des arthrites
chroniques douloureuses de la hanche, presque
toujours avec une sédation passagère des dou-
leurs et une amélioration de la marche, rappé-
lant parfois l'effet d'une cure hydro-minérale.

La méthode est générale.

Elle doit prendre place désormais aux côtés
des grands procédés de la thérapeutique cou-
rante : immobilisation, hyperémie, révulsion,
etc... Elle est essentiellement un blocage anes-
thésique des réflexes vaso-moteurs et algiques.

Si on la considère, comme ce doit être, en
filiation directe avec les infiltrations paraverté-
brales du sympathique, et avec les diverses sym-
pathectomies, on peut se rendre compte qu'il
y a, dans l'utilisation des extraordinaires pro-
priétés de la novocaïne et de ses dérivés, une
ressource thérapeutique d'étonnante portée,
dans tous les états où les phénomènes fonction-
nels sont prédominants ou du moins impor-
tants. Elle permet de bloquer l'excitation ner-
veuse qui les conditionne et nous sommes loin
d'en avoir encore fait le tour.

Nous avons dit, Fontaine et moi, ce que l'on

Louis TAVERNIER

A propos du traitement
de l'épicondylite des joueurs de tennis

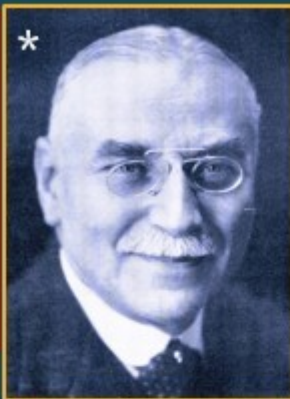
M. Massart a écrit dans La Presse Médicale,
du 27 Novembre, sur le traitement de l'épicon-
dylite des joueurs de tennis, un article que j'ai
lu avec beaucoup d'intérêt et un peu de sur-
prise. J'avais essayé moi aussi, il y a quel-
ques années, cette méthode des injections locales
analgésiantes qui a donné à M. Massart trois
beaux succès, et je l'avais abandonnée.

J'avais pratiqué à quelques jours de distance
quatre injections de scurocaïne à 2 pour 100 :
le soulagement immédiat obtenu avait émer-
veillé mon malade comme ceux de M. Massart,
mais après quelques heures la déception cau-
sée par le retour des douleurs n'en avait été
que plus amère, et après la quatrième piqûre
le patient avait refusé de continuer, prétendant
à tort ou à raison qu'il souffrait plus qu'avant
le traitement.

Il est difficile de s'expliquer des résultats
aussi complètement discordants. Il est vrai que
j'avais eu affaire à un cas grave en pleine pé-
riode d'évolution; peut-être M. Massart a-t-il
rencontré des cas légers, ou à la période de ter-
minaison. Quoi qu'il en soit, je recommencrai

A PROPOS DU TRAITEMENT DE L'ÉPICONDYLITE DES JOUEURS DE TENNIS (Treatment of the Epicondylitis of Tennis Players). L. Tavernier. *Presse Méd.*, XLIV, 99, Jan. 15, 1936.

With reference to Massart's suggestion for the local injection of novocain in the treatment of epicondylitis, Tavernier states that his results from this method have been completely unsatisfactory. In his opinion, mere scraping of the epicondyle with detachment of the muscles is a simple and safe procedure.— Louis TAVERNIER *, LYON



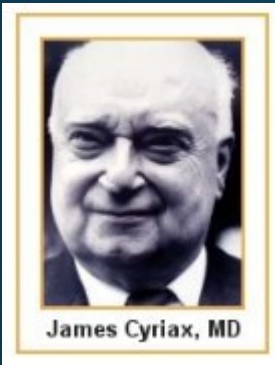
A PROPOS DU TRAITEMENT PAR INFILTRATION NOVOCAÏNIQUE DE L'ÉPICONDYLITE DES JOUEURS DE TENNIS, DES MALADIES POST-TRAUMATIQUES DE MÊME ORDRE, DES SOI-DISANT APOPHYSITES DE CROISSANCE, DE CERTAINES FRACTURES SANS DÉPLACEMENT ET DES SÉQUELLES OSTÉO-ARTICULAIRES (Treatment by Novocain Infiltration of the Epicondylitis of Tennis Players, of Post-Traumatic Disorders of the Same Type, of the So Called Apophysitis of Growth, of Certain Fractures without Displacement, and of Osteo-Articular Sequelae). René Leriche. *Presse Méd.*, XLIV, 99, Jan. 15, 1936.

Leriche disagrees with Tavernier and is in complete accord with Massart in the treatment of epicondylitis. He goes even farther and states that novocain infiltration is of great value in treating all post-traumatic juxta-epiphyseal pain. This method should be used in the treatment of epiphysitis during growth, in the foot, the hand, the elbow, and the shoulder, and in the treatment of all sequelae of articular fractures. LERICHE

Mais je crains que le traitement par les injections analgésiantes ne soit pas aussi régulièrement efficace que le pense M. Massart; et pour ces cas graves, rebelles aux piqûres, qui désespèrent un champion pendant six mois, un an, et souvent plus, je pense utile de faire savoir qu'une de ces interventions chirurgicales, qui, si j'en crois M. Massart, ne se pratiquent plus, est susceptible de donner à peu de frais de parfaites guérisons.

La simple rugination de l'épicondyle avec désinsertion des muscles, opération insignifiante et non mutilante, car les muscles se réinsèrent en quelques jours, m'a donné des guérisons complètes et définitives dans deux cas anciens de plusieurs années. L'opération ne montre d'ailleurs aucune lésion appréciable à l'œil nu ni à l'examen microscopique.

Je crois qu'il n'est pas sans intérêt de vulgariser toutes ces notions, car l'épicondylite est une maladie beaucoup plus fréquente qu'on ne le dit, mais elle est souvent méconnue : les formes légères se contentent des massages d'un moniteur de gymnastique, les formes graves sont souvent prises par les médecins pour des arthrites tuberculeuses débutantes, celles qui sont reconnues sont habituellement soignées par les agents physiques, sans autre résultat que de faire prendre patience aux malades.



James Cyriax, MD

1906-1985

Text Book of Orthopaedic Medicine

1954

10 ediciones

CYRIAX (1936) : rotura parcial del tendón del ECRB.

Tratamiento: manipulación forzada para convertirla en rotura total



Cyriax

THE PATHOLOGY AND TREATMENT OF TENNIS ELBOW

BY J. H. CYRIAX, M.B. (CANTAB.), LONDON, ENGLAND

A condition, the symptoms and signs of which are as constant as those of tennis elbow, may well be supposed to have but one pathology and, as a corollary, but one type of treatment. The purpose, then, of this paper is to present a synopsis of the opinions held on the pathology of tennis elbow and to single out the most probably correct. Further, an attempt is made to reconcile apparently contradictory views on treatment and to promote the adoption of a simple and quick method.

PREDISPOSING FACTORS

Work or play which entails repeated pronation and supination movements with the elbow almost fully extended is essential for the development of a tennis elbow; those patients who remember no special overexertion will be found to be working at screwing, lifting, hammering, ironing, etc., or to be violinists, surgeons, masseurs, etc.

Cubitus valgus, mentioned by Preiser²², is obviously important, but many patients do not show it. Of course, the smaller the carrying angle the greater will be the strain on the outer side of the elbow joint when the extended forearm is vigorously supinated or when a weight is carried with an extended and supinated forearm. The roentgenograms reproduced in various articles often show considerable valgus,—e.g., Merlini's⁵⁷ Case 2, Bergmann's⁴⁹ Case 2.

Rheumatism,^{3, 63} suppressed gout,^{3, 19} the arthritic diathesis, and focal sepsis^{28, 68, 69, 80, 88} have all been suggested as determining the chronicity of the lesion in tennis elbow, once it has occurred. Though these may have some bearing in the older patients, they are probably coincidental, since treatment to the elbow alone clears the condition up permanently. Moreover, other chronic conditions about joints—golfer's elbow and rider's sprain are the most analagous—are not considered due to anything but the original trauma, and it is clearly only the long duration and the refractoriness to treatment that have suggested these contributory factors. When the general adoption of adequate treatment has lessened the period of disability, little will probably be heard of this theory.

DURATION

The condition usually clears up in eight to twelve months without any treatment except perhaps avoidance of the painful movements for a time. Cases lasting much longer, however, are encountered. Merlini⁵⁷ described two cases in fencers, which lasted seventeen and twenty years respectively; Ochsenius's⁵³ patient, however, who was supposed to have had a tennis elbow for twenty-seven years, cannot be included, since he

was treated after two years' disability by iodoform injections into the joint under the mistaken diagnosis of a tuberculous arthritis. When last seen he had a marked osteo-arthritis of the elbow and showed Preiser's incongruence. Others have reported durations of from four to six years,—Coudere¹⁰, Tavernier⁴⁴, and Ferrero⁵⁸.

FREEDOM FROM RECURRENCE

A tennis elbow, once it is well, does not tend to recur. This is the common experience of everyone, but the fact has never been stressed. Although an ordinary muscular stiffness (Clado's "*courbature*"¹⁵) may pass off completely and return on exercise, no case of recurrence after full development of the syndrome has ever been reported. Hansson and Horwich⁷⁴ mention two patients, both Davis-Cup players, who were free from symptoms six and fourteen years respectively after recovery. Knoll⁸² found that six out of forty-one international players had had tennis elbow and had recovered, so that it would almost appear to be a condition to be expected, borne, and recovered from in the course of training among this class of sportsmen.

Further information on this point was obtained by an inquiry sent to those authors who had cited themselves as sufferers. Six replies were received (see References) in all of which recurrence was denied after the lapse of seven, nine, thirteen, thirteen, twenty-two, and twenty-four years respectively, although the game or work responsible had been resumed as soon as the elbow had become well.

POSITION OF AREA OF MAXIMUM TENDERNESS

This has been variously stated as:

1. On the tip of the epicondyle (most authors);
2. On the posterior surface of the epicondyle (Fisher⁶⁰);
3. On the anterior surface of the epicondyle (Vulliet²¹, Tavernier⁴⁴);
4. On the radiohumeral joint line (Trethowan⁷¹, Bankart⁸³);
5. On the capsule of the elbow joint (Preiser¹⁷, Glass⁶⁵);
6. Above the epicondyle (Bertocchi⁵⁴, Ogilvie⁶⁶);
7. Over the radio-ulnar joint (Fisher⁶⁰).

Since the precise position is of importance for the elucidation of the pathology, particular care was taken in the writer's series to determine this accurately. Of the twenty-two elbows reported here, twenty were tenderest on the anterior aspect of the lateral epicondyle, one on the apex of the epicondyle, and one on the extensor bellies. Nearly all were more tender on the radiohumeral joint line than on the apex of the epicondyle,—a fact which may account for the statement that the tenderness is greatest on the joint line, for the anterior face of the epicondyle is not easy to get at and can be palpated firmly only with the elbow flexed. Occasionally the radiohumeral capsule was slightly tender; in no case

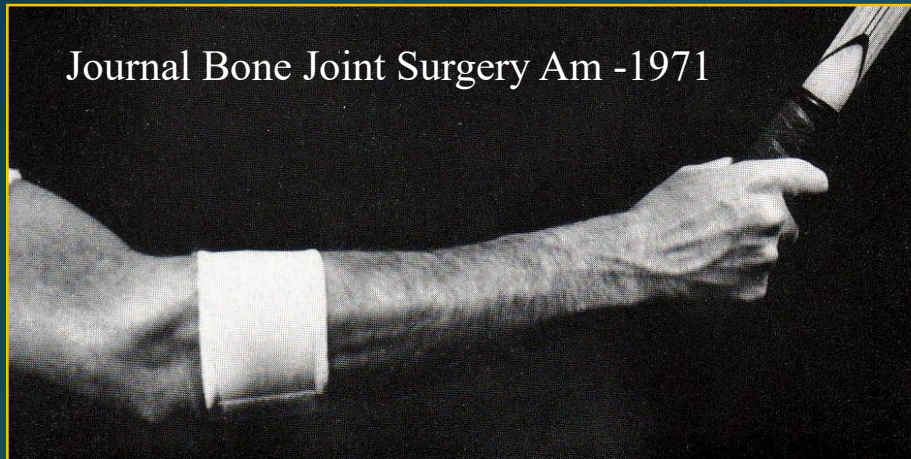
Treatment of Tennis Elbow with Forearm Support Band

BY AVRUM I. FROMSON, M.D.*, CLEVELAND, OHIO

Although the pathological lesion in tennis elbow has not been convincingly demonstrated, it appears that most methods of treatment have in common the reduction of tension in the common extensor origin on the lateral humeral epicondyle. Conservative remedies include rest, cock-up splints, and elbow braces, while surgical methods relieve tension directly by fasciotomy, muscle stripping, or tendon lengthening. To provide a simple method of achieving this desired relief of tension, I have designed a forearm support band that is being produced commercially.

The support is a 5.4-centimeter wide band of heavy-duty non-elastic fabric lined with foam rubber padding to prevent slipping. The band is easily applied with Velcro fasteners encircling the forearm just below the elbow (Fig. 1). Tension is adjusted to a comfortable degree with the muscles relaxed so that maximum contraction of the wrist and finger flexors and extensors is inhibited by the band. The patient is advised to use the support only during actual play to avoid excessive tightness and to remove it during periods of inactivity to avoid venous congestion and edema.

Journal Bone Joint Surgery Am -1971





INFILTRACIONES

- PRP
- CÉLULAS MADRE
- CORTIESTEROIDES
- ÁCIDO HIALURÓNICO

VISCOALIMENTACIÓN ARTICULAR

Sinovial® One
2,0% AH
(50 mg AH/2,5 ml)
C.N. 209018:7

Sinovial® HL
A-B híbrido
3,2% - 16 mg (AH-A) + 16 mg (AH-B)/1 ml
Hialuronato de sodio
Producto sanitario para la aplicación de viscosuplemento articular
Jeringa precargada de 1 ml + una aguja
Estéril-desechable

Sinovial® HL
A-B híbrido
32 mg (AH-A) + 32 mg (AH-B)/2 ml
Hialuronato de sodio
Producto sanitario para la aplicación de viscosuplemento articular
Jeringa precargada de 2 ml + una aguja
Estéril-desechable

Sinovial® HL 1ml
3,2% AH

Sinovial® HL 2ml
3,2% AH

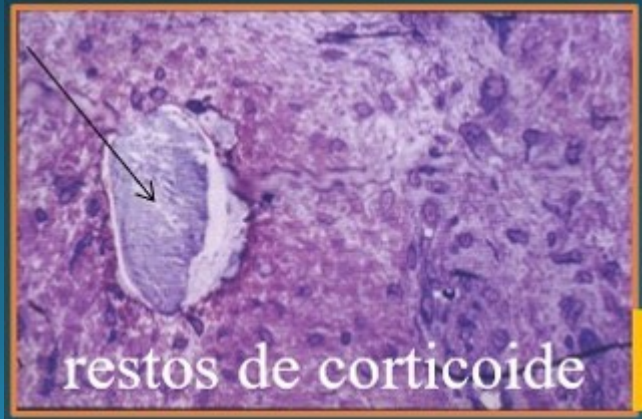
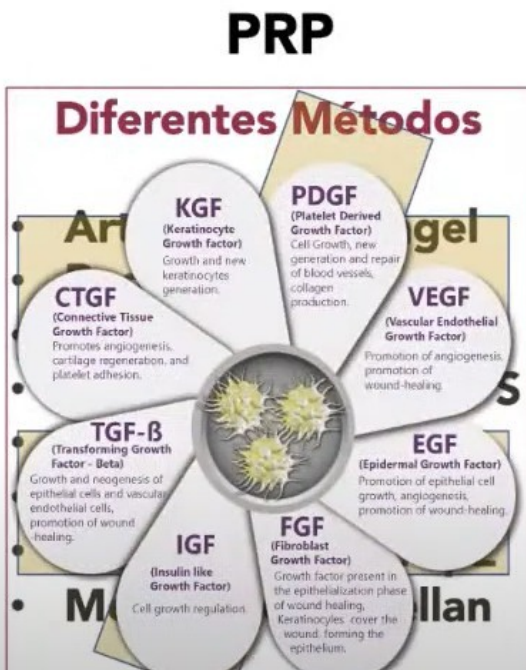
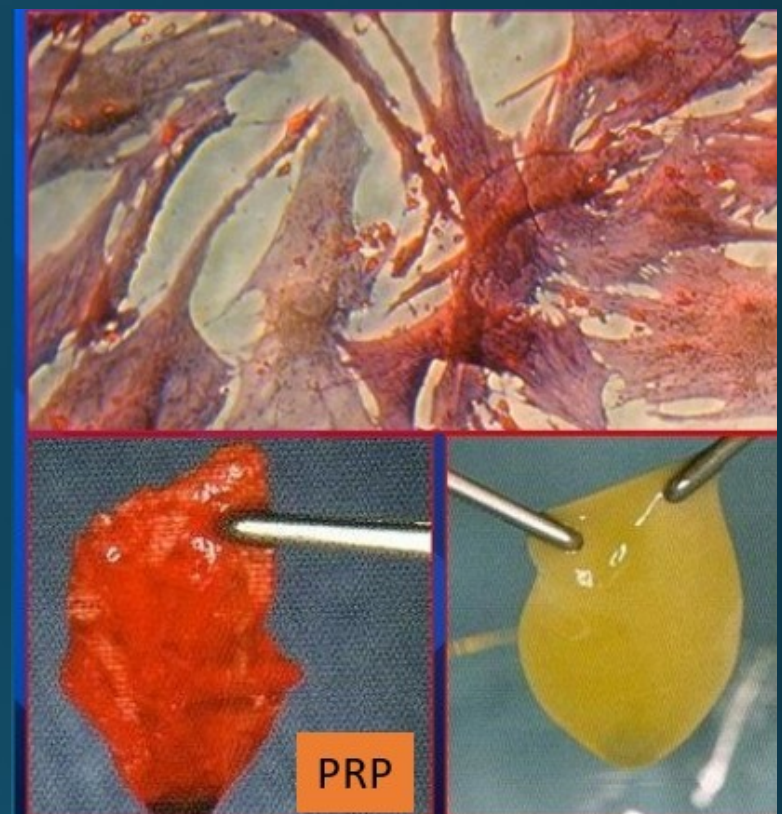
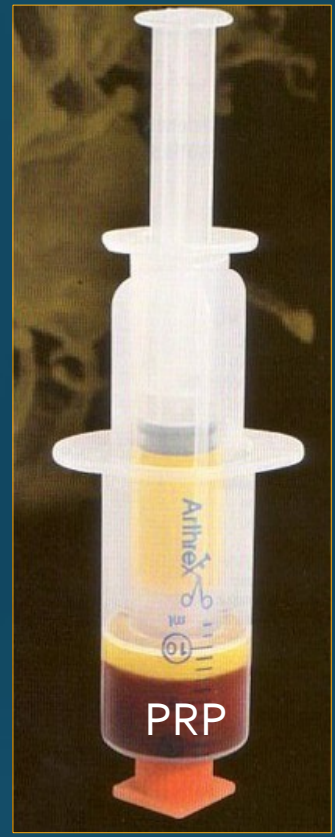
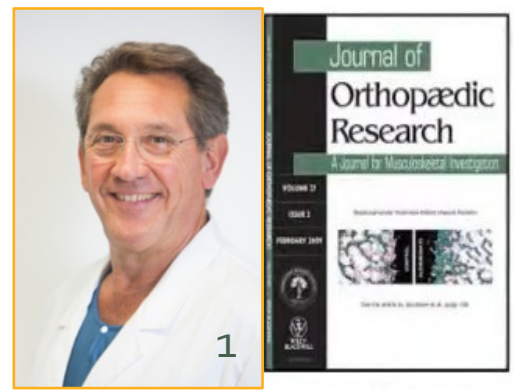
Application of autologous growth factors on skeletal muscle healing

M. Sanchez¹, E. Anitua², I. Andia² 2005

20 deportistas profesionales.

Disminuye el dolor y limitacion funcional

Recuperación en mitad del tiempo.





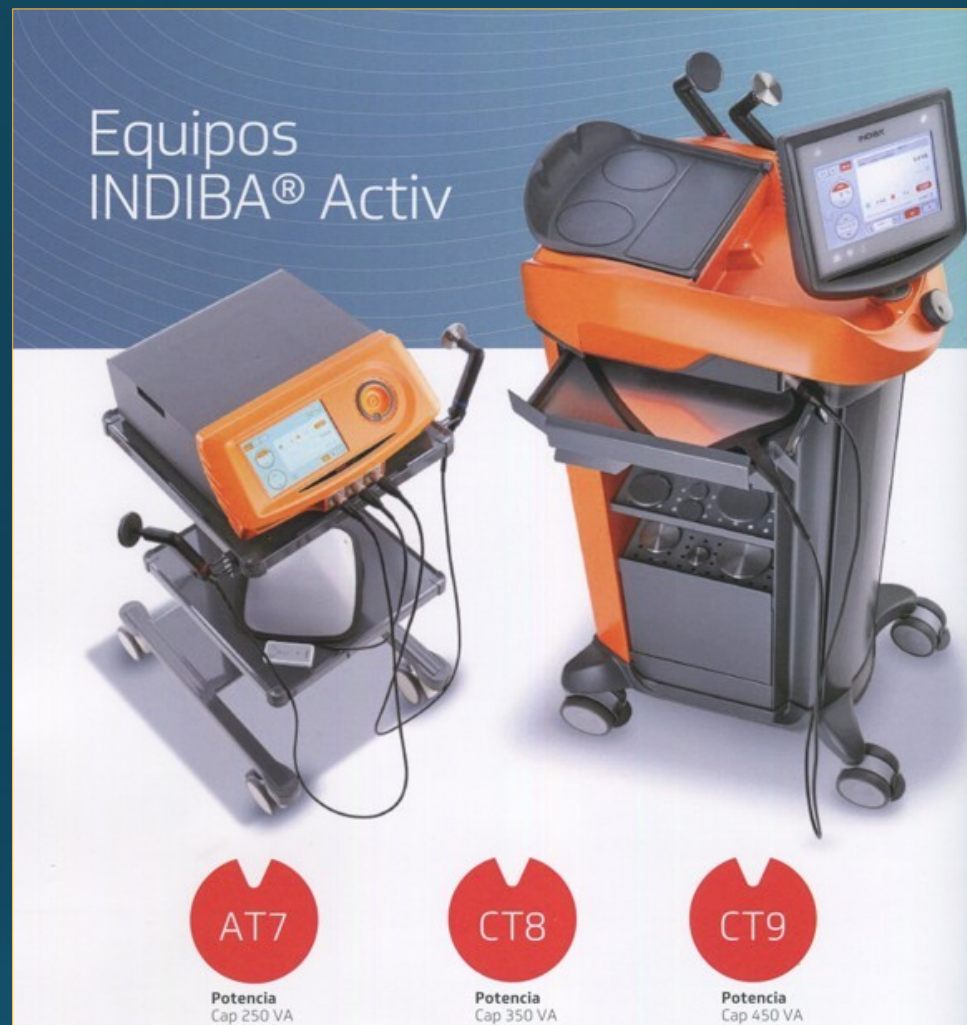
ONDAS de CHOQUE: ROMPE J Bone Joint Surg - 1996



acupuntura



Laserterapia



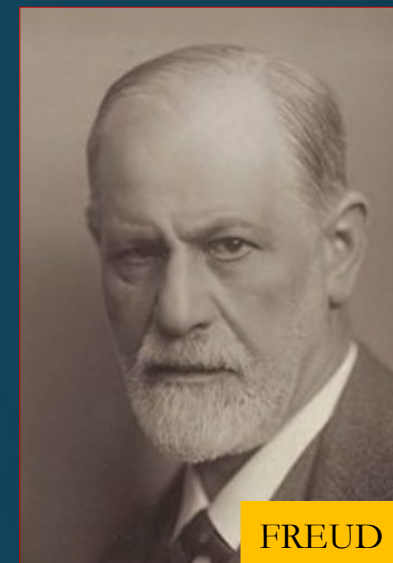
Mediante la aplicación de corrientes electromagnéticas de hasta 448 KHz se consigue :

- Estimular la proliferación de células madre
- Estimular los condrocitos aumentando reparación del cartílago
- Disminuir el dolor articular y muscular.
- Mejorar de forma rápida los desgarros musculares



MANO PSICÓGENA TRATAMIENTO

- Evitar la confrontación con el paciente
- Vigilar su agresividad
- Solicitar una evaluación psiquiátrica
- Asociar psicoterapia si es necesaria
- Descartar que sea un simulador



Classification system for factitious syndromes in the hand with implications for treatment

SÍNDROMES FICTICIOS

We evaluated 29 patients with factitious disorders in the hand who received Worker's Compensation benefits. Three types of factitious hand disorders based on physical presentation were self-mutilation and wound manipulation, edema, and finger and hand deformities. Two distinct psychological diagnoses present were factitious disorder with physical symptoms and conversion disorder. The Minnesota Multiphasic Personality Inventory revealed two personality profiles: emotionally dependent and angry and hostile. Behavioral treatment was implemented. The emotionally dependent group responded well, with 80% returning to work. The angry and hostile group had a much poorer response, with 21% returning to work. None of the self-mutilating patients returned to work. We recommend a combined evaluation by a physician, a psychologist, and a hand therapist to achieve a definitive diagnosis for these disorders. The identification of psychological profiles assists in ascertaining which patients will be responsive to behavioral treatment. (J HAND SURG 1991;16A:1027-30.)

Brad K. Grunert, PhD, James R. Sanger, MD, Hani S. Matloub, MD, and N. John Yousif, MD, Milwaukee, Wis.



Posttraumatic Stress Disorder

Ansiedad, Depresión, Insomnio

[illegible]

'Probablemente es más importante lo que el/la Fisioterapeuta les dice a los pacientes para motivarlos, que lo que hace con sus manos'