

High CTX-II Levels in patients with early Spondyloarthritis.

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Objectives: To determine the predictive value of levels of serum CTX-II in patients with early arthritis.

Methods: A prospective cohort study where patients were evaluated with at least one swollen joint evolution of 6 weeks and up to 6 months duration, included 55 patients with early arthritis consulting PIT (Inflammatory polyarthritis early), all older than 18 years of age, females (47) and (8) male patients underwent radiological studies of hands and feet (Sharp method, Van der Heiden), in addition to the survey of HAQ, DAS28, visual analogue scale (EVS) and profile immunorheumatologic (ANA, Anti-DNA double-chain, anti-ENA, rheumatoid factor, anti-CCP, CTX-II). Patients were evaluated at 3, 6, 12 and 24 months of entry into the study and assigned to fill the ACR criteria for rheumatoid arthritis (RA) or other rheumatic disease: Spondyloarthritis (Spa), Sjögren syndrome, Sistemic erythematosus Lupus (SLE), self-limited arthritis, fibromyalgia and polyarthritis indifference. Patients were classified into 4 groups: self-limited arthritis (16.42%), rheumatoid arthritis (54.5%), spondyloarthropathies (14.54%) and other rheumatic diseases (14.54%). Subsequently subdivided into 2 subgroups: RA and the group of those, and them was analyzed and the Mann-Whitney test for variables Wilcoxon: Rheumatoid Factor (RF), Anti-CCP and CTX-II

Results: Of the 55 patients in the study cohort during a follow-PIT 2 years, 30 patients met the criteria for final monitoring RA (according to ACR) and 8 patients were diagnosed according to criteria Spondyloarthritis ASA. They all showed increased levels of CTX.II above 0.3 ng / ml in the spondyloarthritis group only 25% (3 patients) was found positive for CCP, but with RF (-) in 8 patients. Although the levels of serum CTX-II were elevated in both entities, only in the early spondyloarthritis was 2.5 times above the cutoff, compared

with CTX-II levels in patients with RA (test Mann-Whitney Wilcoxon $p \leq 0.001$).

Conclusions: We found positive for CTX-II in both groups, but had high levels of CTX-II (mean 0,773) in these patients ($p < 0.05$). This biomarker may be present in early stages of this entity especially for the high bone turnover is subject to the physiopathogenic mechanisms activated in chondrocytes and fibrocartilaginous tissue (enthesitis), it is suggested to expand the sample to avoid the random factor.

Figure 1. Distribution according to mean and SD of CTX-II levels in patients with Spa and RA.

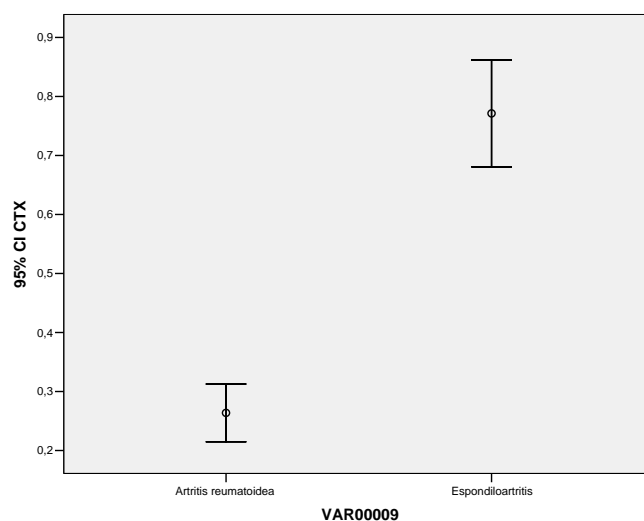
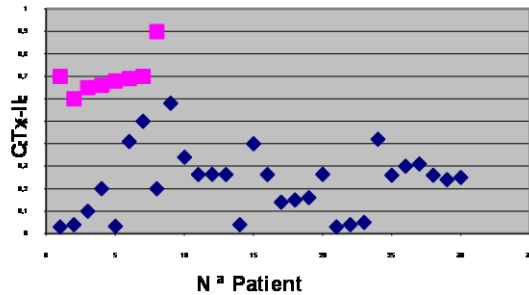


Figure 2. Distribution of patients according to the absolute values of CTX-II



References and recommended reading

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11. Lee DM, Schur PH. Clinical utility of the anti-CCP assay in patients with rheumatic diseases. Ann Rheum Dis 2003; 62: 870-874.
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NIVELES DE CTX-II SÉRICOS ELEVADOS EN PACIENTES CON ESPONDILOARTRITIS TEMPRANA.

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Objetivos: Determinar el valor predictivo de los niveles de CTx-II séricos en pacientes con artritis temprana.

Métodos: Es un estudio de cohorte prospectiva en donde se evaluaron a pacientes con al menos una articulación inflamada de 6 semanas de evolución y hasta un máximo de 6 meses de duración, se incluyeron 55 pacientes con artritis temprana de la consulta de PIT (Poliartritis Inflamatoria Temprana), todos mayores de 18 años de edad, (47) de sexo femenino y (8) de sexo masculino, se les realizó estudios radiológicos de manos y pies (método Sharp-Van der Heiden), además de aplicarle la encuesta de HAQ, DAS28, Escala visual Análoga (EVS) y perfil inmunorreumatológico (ANA, Anti-DNA de doble cadena, Anti-ENA, factor reumatoide, Anti-CCP, CTx-II). Los pacientes fueron evaluados a los 3, 6, 12 y 24 meses del ingreso al estudio y clasificados al llenar los criterios del ACR para Artritis Reumatoide u otra enfermedad reumática: Espondiloartritis (según criterios de ASA), Síndrome de Sjögren, Lupus eritematoso sistémico (LES), Fibromialgia, Artritis autolimitada y poliartritis indiferenciada. Los pacientes fueron clasificados en 4 grupos: artritis autolimitada (16.42%), artritis reumatoide (54.5%), Espondiloartropatías (14.54%) y otras enfermedades reumáticas (14.54%). Posteriormente se subdividió en 2 subgrupos: AR y el grupo de EsAs, y a ellos se les aplicó estadística descriptiva y el Test de Mann-Whitney Wilcoxon para las variables de: Factor reumatoide, Anti-CCP y CTx-II.

Resultados: De los 55 pacientes del estudio de cohorte de PIT durante un seguimiento de 2 años, 30 paciente cumplían al final de seguimiento criterios para AR (según ACR) y 8 pacientes se les diagnosticó espondiloartritis según los criterios de ASA. En todos se evidenció un aumento de los niveles de CTx-II por encima de 0,3 ng/ml, en el grupo de espondiloartritis temprana, solo un 25% (3 pacientes) se le encontró positividad para Anti CCP pero con FR (-) en los 8 pacientes. A pesar de que los niveles de CTx-II sérico se encontraron elevados en ambas entidades, solo en la espondiloartritis temprana se encontró 2,5 veces por encima del punto de corte (cutoff), en comparación con los niveles CTx-II encontrados en paciente con AR (test de Mann-Whitney Wilcoxon $p \leq 0.001$).

Tabla 1. Distribución de los grupos en estudio (EsAs y AR) y presencia de FR (+), CTx-II y Anti-CCP

Grupos	N (%)	FR positivo $\geq 1/80$ (%)	Ctx-II \geq de 0.3ng/ml (%)	Anti-CCP (> 5mg)
Artritis Reumatoide	30 (78.9%)	24 (80%)	30 (100%)	30 (100%)
Espondiloartritis Temprana	8 (21.1%)	0 (0%)	8 (100%)	2 (25%)
Total	38(100%)	24 (100%)	38 (100)	32

Tabla 2. Distribución según media y desviación estándar de los niveles de CTx-II, FR y Anti-CCP en pacientes con Artritis Reumatoide y Espondiloartropatía temprana.

Grupos	N	Valor Mínimo-Valor Máximo	Media	Desviación Standard (SD)	Mann-Whitney U (Wilcoxon)	P<0.05
AR (n=30)	FR	0.00-1.00	0.833	0.38	22.00 (37.00)	0.05
	Anti-CCP	2.00-100	40.6907	46.82	114 (579)	0.814
	CTX-II	0.03-0.58	0.263	0.13	0.00 (465)	0.25
EsAs (n=8)	FR	0.00-1.00	0.00	0.0		
	Anti-CCP	2.00-100	32	30.38		0.72
	CTX-II	0.6-0.90	0.773	0.11		0.001(*)

Conclusiones: Se encontró positividad para CTx-II en ambos grupos, sin embargo se evidencio niveles elevados de CTx-II (media 0.773) en pacientes con EsAs ($p < 0.05$). Este biomarcador puede estar presente en etapas tempranas de esta entidad sobre todo por el alto recambio óseo a que esta sujeta al activarse los mecanismos fisiopatogénicos en los condrocitos y tejido fibrocartilaginoso (entesitis), se sugiere ampliar la muestra para evitar el factor azar.

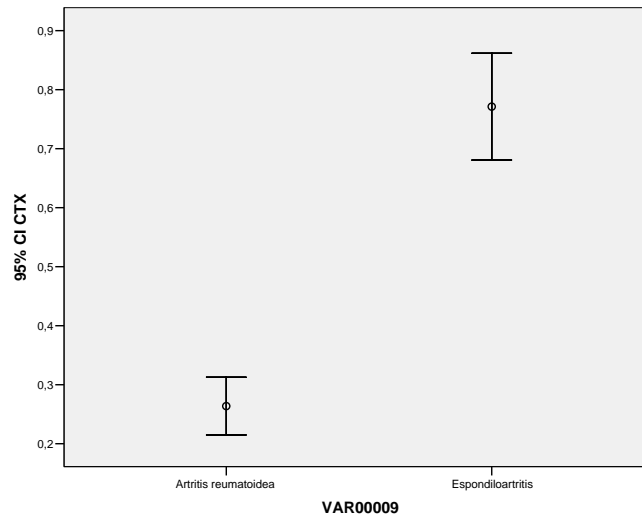


Gráfico 1. Distribución según media y SD de los niveles Ctx-II en pacientes con EsAs y AR.

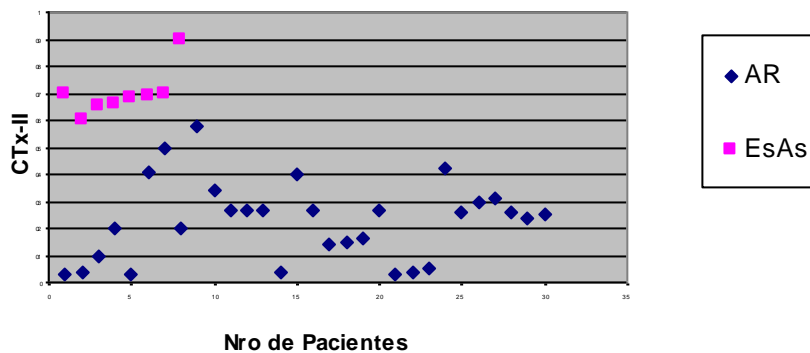


Gráfico 2. Distribución de los pacientes según valores absolutos de Ctx-II

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