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CHEMICAL CONSTITUENTS FROM LEAVES OF *Vernonia rubricaulis* HUMB. & BONPL. (ASTERACEAE)

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Abstract: Cattle raising is a important economic activity of Mato Grosso do Sul and one of the problems encountered in this activity is the death of cattle caused by poisoning with toxic plants found in pasture[1]. One of the main toxic plants for ruminants found in Mato Grosso do Sul is *Vernonia rubricaulis* HUMB & BONPL. (Asteraceae), which causes abundant salivation, diarrhea and lack of coordination[2]. The present work deals with the chemical study of the leaves of a specimen of *V. rubricaulis* collected in a pasture region of Porto Murtinho - Mato Grosso do Sul. The EtOH extract was subsequently partitioned between MeOH/H_2O 9:1, hexane and ethyl acetate. The hexane and ethyl acetate phases were studied. An aliquot (10,0 g) of the hexane and ethyl acetate phases, after a combination of column chromatography on silica gel and gel filtration on Sephadex LH-20 separations, led to the isolation of and characterization of eleven compounds belonging to four different classes: three triterpenes, ursolic acid acetate, 2α,3β,19α-trihydroxy-urs-12-ene-28-oic acid (tormentic acid), and lupeol, two diterpenes, *ent*-3α-hydroxykaur-16-ene and phytol, two flavonoids, quercetin-7-*O*-β-D-glucopyranoside and quercetin-4'-*O*-β-D-galactopyranoside, two quinic acid derivatives, 4,5-di-*O*-caffeoylquinic acid and 3,5-di-*O*-caffeoylquinic acid, in addition to α-tocopherol and saccharose. Structural determination of the isolated compounds was made on the basis of spectroscopic data (IR, ^{1}H and ^{13}C NMR), MS and optical rotation values.

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References:

[1] Tokarnia, C. H.; Dobereiner, J.; Peixoto, P. V.; *Toxicon* **2002**, *40*, 1660.

[2] Brum, K. B.; Purisco, E.; Lemos, R. A. A.; Riet-Correa, F.; *Pesq. Vet. Bras*. **2002**, *22*, 119.