LBF-P4 FARMAKOGNOZIJSKO ISPITIVANJE HERBE RANJENIKA, *Anthyllis vulneraria* L. (Fabaceae)

J. Kukić-Marković[1], M. Stojanović[2], V. Milutinović[1]
[1]Univerzitet u Beogradu – Farmaceutski fakultet, Beograd, Srbija, [2]AU „Galena lab", Beograd, Srbija

Ranjenik ili belodun (*Anthyllis vulneraria* L., Fabaceae) rasprostranjen je na planinskim pašnjacima Evrope, severne i južne Afrike, kao i jugoistočne Azije. U narodnoj medicini koristi se u obliku obloga za zarastanje rana, ogrebotina, uboda i manjih opekotina, dok se infuz primenjuje kod tegoba respiratornog sistema, za jačanje organizma i kao blag diuretik. U nadzemnim delovima biljke do sada su identifikovana jedinjenja iz klasa flavonoida, tanina, saponozida i proteini. U ovom istraživanju analiziran je nadzemni deo biljke u fazi cvetanja, prikupljen u podnožju planine Rtanj (istočna Srbija) u julu 2024. godine i prirodno osušen. Primenom farmakopejskih metoda određeni su sadržaji vlage, ukupnog pepela, tanina i flavonoida u biljnoj drogi. Biljni materijal ekstrahovan je 50% etanolom, a dobijeni suvi ekstrakt analiziran metodom tečne hromatografije sa masenom spektrometrijom (LC–MS). Sadržaj vlage iznosio je 8,62%, a ukupnog pepela 9,19%, što je u skladu sa propisanim vrednostima za većinu oficinalnih biljnih droga. Sadržaj flavonoida iznosio je 0,78% (izraženo kao hiperozid), a tanina 0,24% (izraženo kao pirogalol). LC–MS analizom etanolnog ekstrakta detektovano je više od 30 jedinjenja, pretežno flavonola, heterozida kvercetina i kemferola, kao i njihovih metil-derivata. Najzastupljenija komponenta bio je izokvercitrin (7,36 mg/g). Utvrđeni hemijski profil i visok sadržaj bioaktivnih flavonoida (oko 5%) predstavljaju dobru osnovu za razvoj analitičkih metoda za identifikaciju i kontrolu kvaliteta biljne sirovine, kao i za buduću primenu ekstrakata *A. vulneraria* u kozmetičkim i drugim biljnim proizvodima.

Zahvalnica
Istraživanje je finansiralo Ministarstvo nauke, tehnološkog razvoja i inovacija Republike Srbije kroz dva ugovora sa Univerzitetom u Beogradu–Farmaceutskim fakultetom (brojevi Ugovora: 451-03-33/2026-03/200161 i 451-03-34/2026-03/200161).

LBF-P4 PHARMACOGNOSTIC INVESTIGATIONS ON KIDNEY VETCH, *Anthyllis vulneraria* L. (Fabaceae)

J. Kukić-Marković[1], M. Stojanović[2], V. Milutinović[1]
[1]University of Belgrade – Faculty of Pharmacy, Belgrade, Serbia, [2]Pharmacy „Galena lab", Belgrade, Serbia

Anthyllis vulneraria L. (Fabaceae), commonly known as kidney vetch, is widely distributed in mountain grasslands across Europe, North and South Africa, and Southeast Asia. In traditional medicine, it is applied topically as poultices to promote the healing of wounds, abrasions, insect bites, and minor burns, while infusions are used to relieve respiratory ailments, as a general tonic, and as a mild diuretic. Previous phytochemical studies have identified flavonoids, tannins, saponins, and proteins in the aerial parts of the plant. In the present study, the aerial parts of A. vulneraria*were collected at the flowering stage from the foothills of Mt. Rtanj (Eastern Serbia) in July 2024 and naturally air-dried. Pharmacopoeial methods were used to determine moisture, total ash, tannin, and flavonoid contents. The plant material was extracted with 50% ethanol, and the dry extract was characterized by liquid chromatography–mass spectrometry (LC–MS). The moisture and total ash contents were 8.62% and 9.19%, respectively, both complying with the limits established for the most official herbal drugs. Total flavonoid and tannin contents were 0.78% (expressed as hyperoside) and 0.24% (expressed as pyrogallol), respectively. By LC–MS analysis more than 30 compounds were detected, predominantly flavonols, quercetin and kaempferol glycosides, and their methylated derivatives. Isoquercitrin was the major constituent (7.36 mg/g). The characteristic phytochemical profile and high flavonoid content (approximately 5%) provide a basis for developing analytical methods for the identification and quality control of *A. vulneraria* plant material and support the future application of its extracts in cosmetic and other plant-based products.

Acknowledgement
The research was funded by the Ministry of Science, Technological Development, and Innovation of the Republic of Serbia, through two Grant Agreements with the University of Belgrade–Faculty of Pharmacy (Nos. 451-03-33/2026-03/200161 and 451-03-34/2026-03/200161).