

5 April 2016
EMA/HMPC/143657/2015
Committee on Herbal Medicinal Products (HMPC)

List of references supporting the assessment of *Polygonum aviculare L., herba* Final

The European Medicines Agency acknowledges that copies of the underlying works used to produce this monograph were provided for research only with exclusion of any commercial purpose.

Al-Hazimi HM, Haque SN. A new naphthoquinone from *Polygonum aviculare*. *Nat Prod Lett* 2002, 16:115–118

Blumenthal M, Busse WR, Goldberg A, Gruenwald J, et al., editors. The Complete German Commission E Monographs. American Botanical Council, Austin Texas 1998, 157-158

Braun H. Heilpflanzen-Lexikon für Ärzte und Apotheker. *Polygonum aviculare* – Vogelknöterich. 2nd ed. Gustav Fischer Verlag, Stuttgart 1974, 154

Cai Y, Luo Q, Sun M, Corke H. Antioxidant activity and phenolic compounds of 112 traditional Chinese medicinal plants associated with anticancer. *Life Sci* 2004, 74:2157–2184

Cong HJ, Zhang SW, Zhang C, Huang YJ, Xuan LJ. A novel dimeric procyanidin glucoside from *Polygonum aviculare*. *Chinese Chemical Letters* 2012, 23:820–822

Costea M, Tardif FJ. The biology of Canadian weeds. 131. *Polygonum aviculare* L. *Canadian Journal of plant science* 2005, 85:481-506

European Pharmacopoeia 8th ed. Knotgrass – *Polygoni avicularis herba*. Council of Europe. 07/2013: 1885

Farmakopea Polska. 4th ed. Vol 2. Herba *Polygoni avicularis* – Ziele rdestu ptasiego. Państwowy Zakład Wydawnictw Lekarskich, Warszawa 1970, 281-282

Fintelman V, Weiss RF. Lehrbuch der Phytotherapie. 11th ed. Hippokrates Verlag, Stuttgart 2006, 420

Frerichs G, Arends G, Zörning H, editors. Herba *Polygoni* (aviculare). In Hagers Handbuch der pharmazeutischen Praxis. Vol 2. Verlag von Julius Springer, Berlin 1927, 511-512



Gehrmann B, Koch WG, Tschirch CO, Brinkmann H. Medicinal herbs: A compendium. The Haworth Herbal Press, Inc. New York, London, Oxford 2005, 27

Gessner O, Orzechowski G. Gift- und Arzneipflanzen von Mitteleuropa. 3rd ed. Carl Winter Universitätsverlag, Heidelberg 1974, 430-431

González Begné MG, Yslas N, Reyes E, Quiroz V, Santana J, Jimenez G. Clinical effect of a Mexican Sanguinaria extract (*Polygonum aviculare* L.) on gingivitis. *J Ethnopharmacol* 2001, 74:45–51

Gou J, Zou Y, Ahn J. Enhancement of antioxidant and antimicrobial activities of *Dianthus superbus*, *Polygonum aviculare*, *Sophora flavescens*, and *Lygodium japonicum* by pressure-assisted water extraction. *Food Sci Biotechnol* 2011, 20:283–287

Granica S, Czerwińska ME, Żyżyńska-Granica B, Kiss AK. Antioxidant and anti-inflammatory flavonol glucuronides from *Polygonum aviculare* L. *Fitoterapia* 2013a, 91:180–188

Granica S, Piwowarski JP, Popławsk M, Jakubowska M, Borzym J, Kiss AK. Novel insight into qualitative standardization of *Polygoni avicularis* herba (Ph. Eur.). *J Pharm Biomed Anal* 2013b, 72:216-222

Gruenwald J, Brendler T, Jaenicke C, editors. PDR for herbal medicines. 2nd ed. Thomson PDR, Montvale 2000, 448-449

Gruenwald J, Brendler T, Jaenicke C, editors. PDR for herbal medicines. 3rd ed. Thomson PDR, Montvale 2004, 491-492

Gruenwald J, Brendler T, Jaenicke C, editors. PDR for herbal medicines. 4th ed. Thomson PDR, Montvale 2007, 498-499

Habibi RM, Mohammadi RA, Delazar A, Halabian R, Soleimani RJ, Mehdipour A, et al. Effects of *polygonum aviculare* herbal extract on proliferation and apoptotic gene expression of MCF-7. *DARU* 2011, 19:326-331

Haverland F. *Polygonum aviculare* L. - bird knotgrass. A botanical-chemical-pharmaceutical study. *Pharmazie* 1963, 18:59-87

Hoppe HA. Drogenhunde. Kapitel: *Polygonum aviculare* L. 2. Auflage. Friederichsen de Gruyter & CO, Hamburg 1942, 862-863

Hsu CY. Antioxidant activity of extract from *Polygonum aviculare* L. *Biol Res* 2006, 39:281-288

List PH, Höhammer L, editors. Herba *Polygoni* (aviculare). In Hagers Handbuch der pharmazeutischen Praxis. 4th ed. Vol 6. Drogen N-Q. Springer-Verlag, Berlin 1977, 814-815

Karlsson T. The genus *Polygonum* L. In Jonsell B, editors. Flora Nordica. Vol 1. Stockholm 2000, 255–273

Kazemivash N, Jamali M. Investigation of cytotoxic effects of methanolic total extract of the aerial part of *polygonum aviculare* L. in vegetative and generative phase on nalm-6 (pre B-cell leukaemia) cell line. *Journal of Biology and Today's World* 2013, 11:506-508

Kim HJ, Woo ER, Park H. A novel lignan and flavonoids from *Polygonum aviculare*. *J Nat Prod* 1994, 57:581–586

Kommission E Monographie BGA/BfArM *Polygoni avicularis* herba. Erscheinungsdatum Bundesanzeiger Nr 87 vom 23.4.1987

Madaus G. Lehrbuch der Biologischen Heilmittel. *Polygonum aviculare*. Vogelknöterich. Polygonaceae. 2nd ed. Geaorg Olms Verlag, Hildesheim 1976, 2192-2197

Madaus G. Lehrbuch der Biologischen Heilmittel. *Polygonum aviculare*. Vogelknöterich. Polygonaceae. 1938. Available at: <http://www.henlettes-herb.com/eclectic/madaus/polygonum.html>. Accessed 05/06/2015

Malinowska P. Effect of flavonoids content on antioxidant activity of commercial cosmetic plant extracts. *Herba polonica* 2013, 59:63-75

Mashkovsky MD. [Medical compounds]. Vol 1. Medicine, Moscow 1993, 602 [Russian]

Mashkovsky MD. [Medical compounds]. Vol 1. Medicine, Moscow 1985, 507 [Russian]

Muszyński J. Ziołolecznictwo I leki roślinne. Fitoterapia. Herba *Polygoni avicularis* – Rdest ptasi. Państwowy Zakład Wydawnictw Lekarskich, Warszawa 1954, 123

Narasimhulu G, Reddy KK, Mohamed J. The genus *Polygonum* (Polygonaceae): an ethnopharmacological and phytochemical perspectives - review. *International Journal of Pharmacy and Pharmaceutical Sciences* 2014, 6:21-45

Novaretti R, Lemordant D. Plants in the traditional medicine of the Ubaye Valey. *J Ethnopharmacol* 1990, 30:1-34

Nugroho A, Kim EJ, Choi JS, Park HJ. Simultaneous quantification and peroxynitrite-scavenging activities of flavonoids in *Polygonum aviculare* L. herb. *J Pharm Biomed Anal* 2014, 89:93-98

Österreichisches Arzneibuch. Amtliche Ausgabe. Vol 1. *Herba Polygoni* – Vogelknöterichkraut. Verlag der Österreichischen Staatsdruckerei, Wien 1981, 609

Ożarowski A. Lancucki J. Gasiorowska K. Leki roślinne. Informator. Zjednoczenie Przemysłu Zielarskiego, Herbapol, Warszawa 1978, 209-210

Ożarowskiego A. Ziołolecznictwo. Poradnik dla lekarzy. *Polygonum aviculare* – Rdest ptasi. Państwowy Zakład Wydawnictw Lekarskich, Warszawa 1976, 172-173

Park SH, Sung YY, Nho KJ, Kim HK. Anti-atherosclerotic effects of *Polygonum aviculare* L. ethanol extract in ApoE knock-out mice fed a Western diet mediated via the MAPK pathway. *J Ethnopharmacol* 2014, 151:1109–1115

Pētersone A. Savvaļas ārstniecības augi. Latvijas Valsts Izdevniecība, Rīga 1961, 288-289

Poradnik Terapeutyczny. Herba *Polygoni avicularis*. 3rd ed. Państwowy Zakład Wydawnictw Lekarskich, Warszawa 1975, 407

Produse farmaceutice românești. *Herba Polygoni avicularis*. Editura Medicală. București 1970, 1007-1008

Rios JL, Recio MC, Villar A. Antimicrobial activity of selected plants employed in the Spanish Mediterranean area. *J Ethnopharmacol* 1987, 21:139-152

Roeske W. Zarys Fitoterapii. Farmakologia i receptura ziół leczniczych. Herba *Polygoni aviculare* – Ziele rdestu ptasiego Państwowy Zakład Wydawnictw Lekarskich, Warszawa 1955, 207-208

Roh C, Jung U. Screening of Crude Plant Extracts with Anti-Obesity Activity. *Int J Mol Sci* 2012, 13:1710-1719

Roman I, Rusu MA, Puică C, Borșa M. [Emphasis of some preparate of *Polygonum* action on the vital organs in laboratory animals]. *Annals of the Romanian Society for Cell Biology* 2008, 13:183-198

Rozporządzenie Ministra Opieki Społecznej. Poz 454. *Dziennik Ustaw* 1938, 58:917-917

- Rubine H, Īrioste V. Ārstniecības augu vākšana. Rokasgrāmata. Ārstniecības augu apgāds, Rīga 1999, 124-145
- Rubine H, Ozola S, Enīja V. Ārstniecības augu sagatavošana un lietošana. 2nd ed. Zvaigzne, Rīga 1977, 272-274
- Salama HMH, Marraiki N. Antimicrobial activity and phytochemical analyses of *Polygonum aviculare* L. (*Polygonaceae*), naturally growing in Egypt. *Saudi Journal of Biological Sciences* 2010, 17:57-63
- Sawicka U, Cisowski W, Matysik G, Kowalczyk A. HPTLC of phenolic acids in *Bistortae rhizoma*, *Polygoni avicularis herba*, *Rhei radix* with densitometric determination. *Journal of Planar Chromatography* 2002, 15:442-448
- Schulz V, Hänsel R, Blumenthal M, Tyler VE. Rational phytotherapy: a reference guide for physicians and pharmacists. Springer-Verlag, Berlin Heidelberg 2004, 36
- Skutelis A, Pakalns D. Ārstniecības augu farmakoloģija. SIA Jura apgāds, Rīga 2005, 149
- Smolarz HD. Flavonoid glycosides in nine *Polygonum* L. taxons. *Acta Societatis Botanicorum Poloniae* 2002a, 71:29-33
- Smolarz HD. Comparative study on the free flavonoid aglycones in herbs of different species of *Polygonum* L. *Acta Pol Pharm* 2002b, 59:145-148
- Sohn SH, Lee EY, Lee JH, Kim Y, Shin M, Hong M, et al. Screening of herbal medicines for recovery of acetaminophen-induced nephrotoxicity. *Environ Toxicol Pharmacol* 2009, 27:225-230
- Sokolov S, Zamotaev IP. [Handbook of Medicinal Plants]. Medicine, Moscow 1984, 122-123 [Russian]
- Styles BT. The taxonomy of *Polygonum aviculare* and its allies in Britain. Vol 5. Watsonia 1962, 177-214
- Sun L, Zheng S, Wang J, Shen X. The flavonoids from *Polygonum aviculare*. *Indian Journal of Chemistry* 2002, 41B:1319-1320
- Sung YY, Yoon T, Yang WK, Kim SJ, Kim DS, Kim HK. The antiobesity effect of *Polygonum aviculare* L. ethanol extract in high-fat diet-induced obese mice. *Evid Based Complement Alternat Med* 2013, 1-11
- Świątek L, Dombrowicz E. Fenolokwasy W Farmakopealnych gatunkach z rodzaju *Polygonum* L. *Farmacja Polska* 1986, 7-8:420-423
- Tunón H, Olavsdotter C, Bohlin L. Evaluation of anti-inflammatory activity of some Swedish medicinal plants. Inhibition of prostaglandin biosynthesis and PAF-induced exocytosis. *J Ethnopharmacol* 1995, 48:61-76
- Turowa AD, Sapozhnikova EN, Lee VD. [Medicinal plants of the USSR and Vietnam]. Medicine, Moscow 1987, 90-92 [Russian]
- Weiss RF, Fintelmann V. Herbal medicine: translated from the 9th German edition of Lehrbuch der Phytotherapie published in 1999. 2nd ed. Georg Thieme Verlag, Stuttgart 2000, 211-212
- WHO monographs plants on medicinal plants. Herba *Polygoni avicularis* herba. World Health Organization. Geneva 2010, 329-342
- Wichtl M. Teedrogen. Wissenschaftliche Verlagsgesellschaft mbH, Stuttgart 1984, 344-345
- Wichtl M. Herbal drugs and Phytopharmaceuticals. 3rd ed. Medpharm Scientific Publishers GmbH, Stuttgart 2004, 467-468

Wojdyło A, Oszmiański J, Czemerys R. Antioxidant activity and phenolic compounds in 32 selected herbs. *Food Chemistry* 2007, 105:940-949

Wyk BE van, Wink M. Medicinal plants of the world. An illustrated scientific guide to important medicinal plants and their uses. 1st ed. Timber Press, Inc., Portland, Oregon 2005, 251 and 422

Xu FQ, Guan HS, Feng YY, Yan BL. Meridian tropism of *Polygoni avicularis herba* by tissue distribution of avicularin in rats. *Chinese Herbal Medicines* 2012, 4:201-204

Yakovlev AI, Churilov GI, Ginak AI. [Polysaccharide composition of *Polygonum aviculare*]. *Chemistry of Natural Compounds* 1985, 5:619-622 [Russian]

Yin MH, Kang DG, Choi DH, Kwon TO, Lee HS. Screening of vasorelaxant activity of some medicinal plants used in Oriental medicines. *J Ethnopharmacol* 2005, 99:113-117

Yunuskhodzhaeva NA, Eshbakova KA. Flavonoid composition of the herb *Polygonum aviculare*. *Chemistry of Natural Compounds* 2010, 46:803-804

Yunuskhodzhaeva NA, Abdullabekova VH. [Study of the chemical composition of *Polygoni avicularis* L.]. УДК 547. 972 *Chemistry of raw materials of the plants* 2012, 4:187–191 [Russian]

Zhang XQ, Xu LS. Determination of avicularin in *Polygonum aviculare* L. by square wave polarography. *Proc Chin Acad Med Sci Peking Union Med Coll* 1989, 4(4):193-195

Zhang L, Ravipati AS, Koyyalamudi SR, Jeong SC, Reddy N , Bartlett J, et al. Anti-fungal and anti-bacterial activities of ethanol extracts of selected traditional Chinese medicinal herbs. *Asian Pac J Trop Med* 2013, 6:673-681

Zheng X, Su Y, Shen X, Zheng S. [Studies on flavone constituents from *Polygonum aviculare* L.]. *Journal of Northwest Normal University* 1999, 35:47-49 [Chinese]