GAZİ 2nd INTERNATIONAL SYMPOSIUM GPSS SERIES

GAZİ PHARMA SYMPOSIUM SERIES

PHARMA Turkey 13 11 2017

OCTOBER - ANKARA

2ND INTERNATIONAL GAZİ PHARMA SYMPOSIUM

ABSTRACT BOOK

P3

DIPYRON-LOADED POLYVINYLPYRROLIDONE (PVP) BASED POLYMERIC NANOPARTICLES: FORMULATION AND IN VITRO CHARACTERIZATION

A. Alper Ozturk[1], Sinan Ozer[1], Yasemin Yazan[1]

[1]Department of Pharmaceutical Technology, Faculty of Pharmacy, Anadolu University, Eskisehir, Turkey

Acute and chronic pain occur as a result of tissue damage either accidentally because of an injury or in consequence of surgery. The treat of acute/chronic pain and inflammation is a crucial component of patient care [1]. Nonsteroidal anti-inflammatory drugs (NSAIDs) are among the most extensively used drugs worldwide owing to their efficacy in reducing inflammation and pain. Basic mode of pain relieving is inhibition of pro-inflammatory enzyme cyclooxygenase (COX) [2]. NSAIDs were used in clinical disorders such as osteoarthritis, rheumatoid arthritis, ankylosing spondylitis, gout, dysmenorrhea, dental pain and headache. Dipyrone (metamizole) is a NSAID with a rather short half-life [1]. PVP with varying molecular weights is a non-toxic and non-ionic polymer used in formulating nanoparticles. PVP molecule contains a highly hydrophilic component and a considerably hydrophobic group [3]. Preparing and characterizing dipyrone-loaded polymeric nanoparticles for oral controlled release analgesic delivery was aimed in this study. Spray-drying (Büchi B-190) was used as the preparation method and characterization was achieved by particle size/PDI and zeta potential measurements, DSC thermograms, SEM imaging, XRD, FT-IR and NMR spectroscopic analyses for the comparison of different types of PVP (MW: 10.000 and MW: 58.000).

References

[1] Derry S et al. Cochrane Database Syst Rev 9, 1-48, 2014.
[2] Ong CKS et al. CM&R 5(1), 19-34, 2007.
[3] Koczkur KM et al. Dalton Trans 44, 17883-17905, 2015.

LIST OF AUTHORS

A. Ahmet Basaran	49, 336
A. Alper Ozturk	70, 72, 142
A. Murat Tuncer	194
A. Selen Gurkan-alp	272
A. Seza Bastug	381
Aaron D. Gross	211
Abbas Kaffashi	116
Abdikarim Mohamed Abdi	69
Abdoul Nzeyimana	214
Abdullah Burak Karaduman	263
Abdulselam Ertas	259, 286, 287, 294, 300, 315, 316, 319, 320, 333, 339
Abdurrahman Aktumsek	59
Abdurrahman Olgac	65, 208, 356
Adem Sahin	113, 114, 115
Adil Elik	400
Adrianna Skiba	330
Adriano Mollica	15
Afife Busra Ugur	87
Agostino Bruno	11, 33
Aguilar Noguera, V	200
Ahmet Akin	402
Ahmet Altun	144, 154, 264
Ahmet Kahraman	58
Ahmet Oguz Ada	159, 185, 186, 187
Ahmet Ozbilgin	302
Ahmet Ozdemir	227, 229, 269, 270
Ahmet Turk	162
Ahmet Yasar	372
Ahsen Sevde Cinar	408
Alarcón Ferrer, S	198, 199
Alden S. Estep	211
Alessandro Piccinno	207
Alev Onder	408
Ali Burak Ozkaya	29
Ali Erkan Asci	188
Ali Fuat Cicek	147
Ali Korhan Sig	127
Ali Osman Ceribasi	56, 312
Ali Parlar	162
Ali Sen	323, 324
Ali Uzan	69
Almas F. Memon	392
Alper Arslan	97, 127, 130
Alper Gokbulut	283, 284, 311
Alper Okyar	146, 16
Alper Yalcin	162
Alptug Eren Karakucuk	91
Alptug Karakucuk	30, 9
Amal El Alami	21
Amar Zellagui	325, 328
Amber R. Solangi	392
Ana Hudjek	8
Andrea Angeli	11
Andrea Carotti	208
Andry Nur Hidayat	67
Angel Piñeiro	13
Antimo Gioiello	12, 207
Antonio Macchiarulo	208
Arfana Mallah	392
Arif Bozdeveci	261
Arin Gul Dal	389
Arzu Atalay	59
Arzu Karakurt	218, 233, 242
Arzu Kaya Kocdogan	186, 187
Arzu Keskin-aktan	143
Arzu Onay-besikci	249
Arzu Ozel	230