

Comments on the editorial by Riggio & Ageloni on the ascitic fluid analysis

Anastasios Koulaouzidis

Anastasios Koulaouzidis, Day Case & Endoscopy Unit, Centre of Liver and Digestive Disorders, Royal Infirmary of Edinburgh, 51 Little France Crescent, Edinburgh, EH16 4SA, United Kingdom

Author contributions: Koulaouzidis A reviewed the literature, analyzed the data, and wrote the manuscript.

Correspondence to: Anastasios Koulaouzidis, MD, MRCP (UK), FEBG, Day Case & Endoscopy Unit, Centre of Liver and Digestive Disorders, Royal Infirmary of Edinburgh, 51 Little France Crescent, Edinburgh, EH16 4SA, United Kingdom. akoulaouzidis@hotmail.com

Telephone: +44-131-2421603 **Fax:** +44-131-2421618

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Abstract

Angeloni *et al* published a landmark study on the use of Coulter counters in spontaneous bacterial peritonitis (SBP) diagnosis. Riggio and Angeloni have recently published an editorial on the ascitic fluid analysis in diagnosis and monitoring of SBP. Herein, some points of interest are discussed.

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TO THE EDITOR

I read with great interest the editorial of Riggio & Angeloni on “The ascitic fluid analysis for diagnosis and monitoring of spontaneous bacterial peritonitis”^[1]. In 2003, Angeloni *et al*^[2] published the landmark paper, which set a new era in the diagnostic algorithm of spontaneous bacterial peritonitis (SBP), allowing many clinicians and laboratory staff to feel secure in switching from polymorphonuclear (PMN) manual count to the automated one.

I would like to comment on a few points presented in this editorial. First of all, I would appreciate if the authors could clarify the statement on the need for collection of 10 mL ascitic fluid (AF) in ethylenediaminetetraacetic acid (EDTA) containing tube. Universally, most of the EDTA tubes (“purple-top or red-top tubes”, used for blood collection) have a maximum capacity of 2.5-3.0 mL. If Riggio & Angeloni meant the universal containers, it is my understanding that these tubes, except for being sterile, they do not contain any anticoagulant. On top of that, only 1 mL of fluid is enough for most laboratories to do the differential diagnosis. I disagree with the statement that “following hospitalization of any cirrhotic patient with newly diagnosed ascites, a diagnostic paracentesis is advised”. In fact, all cirrhosis with ascites should have diagnostic paracentesis on hospital admission^[3].

There are indeed 4 well-disseminated practical guidelines and expert’s consensus reports, but many other national guidelines have been produced as well^[4].

Riggio & Angeloni’s comprehensive “Table 2” should list 90 AF samples and not 47 in the study by Wisniewski *et al*^[5], 2123 samples and not 1041 in the study by Noursbaum *et al*^[6], and 78 samples and not 72 in the study by Vanbiervliet *et al*^[7], although three studies have not been included^[8-11]. In addition, Castellote *et al*^[12] in a recently published paper argued that the leucocyte reagent strips may have a role in repeated paracentesis and hence management of SBP.

REFERENCES

- 1 Riggio O, Angeloni S. Ascitic fluid analysis for diagnosis and monitoring of spontaneous bacterial peritonitis. *World J Gastroenterol* 2009; 15: 3845-3850
- 2 Angeloni S, Nicolini G, Merli M, Nicolao F, Pinto G, Aronne T, Attili AF, Riggio O. Validation of automated blood cell counter for the determination of polymorphonuclear cell count in the ascitic fluid of cirrhotic patients with or without spontaneous bacterial peritonitis. *Am J Gastroenterol* 2003; 98: 1844-1848
- 3 Rimola A, García-Tsao G, Navasa M, Piddock LJ, Planas R, Bernard B, Inadomi JM. Diagnosis, treatment and prophylaxis of spontaneous bacterial peritonitis: a consensus document. International Ascites Club. *J Hepatol* 2000; 32: 142-153
- 4 Koulaouzidis A, Bhat S, Saeed AA. Spontaneous bacterial peritonitis. *World J Gastroenterol* 2009; 15: 1042-1049
- 5 Wisniewski B, Rautou PE, Al Sirafi Y, Lambare-Narcy B, Drouhin F, Constantini D, Fischer D, Labayle D, Denis J. [Diagnosis of spontaneous ascites infection in patients with

- cirrhosis: reagent strips] *Presse Med* 2005; **34**: 997-1000
- 6 **Nousbaum JB**, Cadranel JF, Nahon P, Khac EN, Moreau R, Thévenot T, Silvain C, Bureau C, Nouel O, Pilette C, Paupard T, Vanbiervliet G, Oberti F, Davion T, Jouannaud V, Roche B, Bernard PH, Beaulieu S, Danne O, Thabut D, Chagneau-Derrode C, de Lédinghen V, Mathurin P, Pauwels A, Bronowicki JP, Habersetzer F, Abergel A, Audigier JC, Sapey T, Grangé JD, Tran A. Diagnostic accuracy of the Multistix 8 SG reagent strip in diagnosis of spontaneous bacterial peritonitis. *Hepatology* 2007; **45**: 1275-1281
- 7 **Vanbiervliet G**, Rakotoarisoa C, Filippi J, Guérin O, Calle G, Hastier P, Mariné-Barjoan E, Schneider S, Piche T, Broussard JF, Dor JF, Benzaken S, Hébuterne X, Rampal P, Tran A. Diagnostic accuracy of a rapid urine-screening test (Multistix8SG) in cirrhotic patients with spontaneous bacterial peritonitis. *Eur J Gastroenterol Hepatol* 2002; **14**: 1257-1260
- 8 **Kim DK**, Suh DJ, Kim GD, Choi WB, Kim SH, Lim YS, Lee HC, Chung YH, Lee YS. [Usefulness of reagent strips for the diagnosis of spontaneous bacterial peritonitis] *Korean J Hepatol* 2005; **11**: 243-249
- 9 **Li J**, Pan Y, Bao WG, Niu JQ, Wang F. [Multistix10SG urine test in diagnosing spontaneous bacterial peritonitis] *Zhonghua Ganzangbing Zazhi* 2006; **14**: 784-785
- 10 **de Araujo A**, de Barros Lopes A, Trucollo Michalczuk M, Stiff J, Nardelli E, Escobar G, Rossi G, Alvares-da-Silva MR. Is there yet any place for reagent strips in diagnosing spontaneous bacterial peritonitis in cirrhotic patients? An accuracy and cost-effectiveness study in Brazil. *J Gastroenterol Hepatol* 2008; **23**: 1895-1900
- 11 **Koulaouzidis A**, Leontiadis GI, Abdullah M, Moschos J, Gasem J, Tharakan J, Maltezos E, Saeed AA. Leucocyte esterase reagent strips for the diagnosis of spontaneous bacterial peritonitis: a systematic review. *Eur J Gastroenterol Hepatol* 2008; **20**: 1055-1060
- 12 **Castellote J**, Girbau A, Ariza X, Salord S, Vazquez X, Lobatón T, Rota R, Xiol X. Usefulness of reagent strips for checking cure in spontaneous bacterial peritonitis after short-course treatment. *Aliment Pharmacol Ther* 2009; Epub ahead of print

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