

leucocitos 2,3 (71% NT, 15,8% LF, 12,7% MN), PQ208, VSG 62, coagulación normal, fibrinógeno 715 mg/ml, PCR 95 mg/dl, procalcitonina 0,6 ng/ml. No presentaba hipergammaglobulinemia. El resto de la bioquímica fue normal. En el estudio inicial para FOD se solicitaron: hemocultivos, urocultivo, ecocardiograma y serología completa; todas las pruebas fueron negativas o no diagnósticas. Se realizó una TC de abdomen en la que se describió hepatoesplenomegalia homogénea como hallazgo más significativo y la presencia en el colon de signos inflamatorios en sigma. Con estos hallazgos se solicitó una colonoscopia, en la que no se apreció actividad inflamatoria compatible con la enfermedad de base pero sí la existencia de pseudopólipos aislados que se biopsian. En estos se demuestra la presencia de abundantes amastigotes de *Leishmania* spp. en los macrófagos. De forma paralela se había realizado un aspirado de médula ósea que se informó como negativo para la presencia de parásitos. Se habían remitido muestras al centro de referencia para serología mediante IFI de *Leishmania* spp. y se obtuvieron resultados positivos a título significativo de 1/640. Con el diagnóstico de leishmaniasis visceral recibió tratamiento con anfotericina B liposomal a dosis de 3 mg/kg/día según el esquema 1 a 5, 10, 17, 24 y 31. Seis meses más tarde, en diciembre de 2011, continúa asintomática y con normalización de los hallazgos analíticos. Se ha mantenido la suspensión de los inmunosupresores y hasta la fecha no ha presentado brote de la enfermedad inflamatoria intestinal.

Las formas de presentación atípicas de leishmaniasis visceral son más frecuentes en los pacientes con infección por HIV e inmunodeprimidos^{1,2}, pudiendo producirse la afectación mucosa gastrointestinal de forma difusa, con o sin síntomas digestivos acompañantes. La apariencia endoscópica es normal en la mitad de los casos aproximadamente. La localización más descrita en la literatura es la duodenal^{3,4}, pero puede afectar a cualquier localización. Existen casos en los que el diagnóstico de confirmación de formas viscerales de la enfermedad se realizó de forma exclusiva a través de lesiones específicas gastrointestinales⁵ o de la biopsia de forma-

ciones pseudopolipoideas colónicas⁶, como en nuestra paciente, y no mediante el aspirado de médula ósea, que es el método diagnóstico convencional, si bien esta circunstancia es excepcionalmente descrita en la literatura.

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doi:10.1016/j.eimc.2012.01.017

Diagnostic yield of instant liquid biphasic Granada medium for group B streptococcus detection in pregnant women

Rendimiento diagnóstico del medio líquido bifásico instantáneo Granada para la detección de estreptococos del grupo B en mujeres gestantes

Dear Editor,

Group B streptococcus (GBS) neonatal sepsis prevention is based in the intrapartum antibiotic treatment of colonised women.¹ It is recommended to carry out microbiological colonisation studies between 35 and 37 weeks of gestation for GBS detection. These studies involve the inoculation from rectum and vaginal swabs on to enriched, selective and/or pigment-producing media, according to the Centers for Disease Control and Prevention (CDC).² The selective and differential Granada agar medium has been recommended by several authors in the screening of GBS, with good results.^{3–5} Over the last few years, different models of this medium have been marketed with the purpose of improving some parameters, such as the detection time, ease of operation, and storage and preservation conditions. Liquid biphasic and instant liquid biphasic Granada media are examples of this variation.

The aim of this study was to evaluate the diagnostic effectiveness of instant liquid biphasic Granada medium (Biphasic Granada™ culture broth, bioMérieux® Spain S.A.) and compare it with the standard medium for GBS detection.

Two vagino-rectal samples were collected from each patient between 35 and 37 weeks of gestation and placed into Amies transport medium before processing. A total of 502 patients were included in this study. Swabs were dipped in parallel, both into Todd-Hewitt broth with nalidixic acid (15 µl/ml) and gentamicin (8 µg/ml) (Biomedics, Spain) (standard method) and into instant biphasic Granada medium, swirled briefly, broken and left in the tubes. They were incubated at 37 °C. Instant biphasic Granada tubes were inspected at 24 h and 48 h. The appearance of orange-pigmented colonies in this medium was indicative of the presence of GBS. After 24 h of incubation, Todd-Hewitt broths were subcultured onto blood agar plates, which were examined at 24 h and 48 h of incubation at 37 °C in a 5% CO₂ atmosphere. Beta-haemolytic colonies were identified as GBS using the automatic system, Vitek2 (bioMérieux® Spain S.A.).

Group B streptococci were identified after 24 h of incubation, in 52 of 502 pregnant women (10.35%) using the standard method, and in 42 cases (8.36%) by instant biphasic Granada media. A sensitivity of 81%, compared to the standard method, was observed using this last procedure. All the GBS detected by Granada media were confirmed using the reference method with 100% specificity. Avidity values of diagnostic tests are shown in Table 1.

The most widely used enrichment medium for detection of GBS is Todd-Hewitt broth in the presence of antibiotics. Moreover, this culture broth has been recommended by CDCs.^{2,6,7} The highest sensitivity for GBS screening is obtained using an enrichment

Table 1

Operation features of instant liquid biphasic Granada medium compared with the standard method.

	Value	CI (95%)	
Sensitivity (%)	80.77	63.7	97.84
Specificity (%)	100.00	99.78	100.00
PPV (%)	100.00	97.62	100.00
NPV (%)	97.83	95.72	99.93
Prevalence (%)	10.33	6.39	14.33
Validity index (%)	98.01	96.08	99.94

PPV, positive predictive value; NPV, negative predictive value.

broth followed by a subculture in a solid medium, *i.e.* blood agar or Granada media.⁸ Data from the present study showed an excellent specificity with instant liquid biphasic Granada medium, in full agreement with previous works.^{8,9} Nevertheless, only 81% of GBS in pregnant women were detected using this medium alone. Sensitivities between 80% and 93% using similar liquid Granada media were reported by others authors,^{8,9} so data obtained in the present work are located in the lower limit of sensitivity reported by the literature consulted. On the other hand, a study performed by Carvalho et al. reported an excellent sensitivity in the GBS screening study. However, this study did not reproduce real conditions, as it was performed with GBS typified strains, and in ideal conditions, using known concentration bacterial inoculi, and without samples collected from patients.¹⁰ In conclusion, according to data in the present study, the use of instant liquid Granada medium as the only method for the screening of GBS from colonised pregnant women is not the procedure of choice, due to its limited yield. Nevertheless, the advantages of this medium, such as, short time in detection, ease of manipulation and simplicity in the identification of the typical colonies, could make it useful in combination with other standard methods.

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doi:10.1016/j.eimc.2012.01.006