O14 - Comunicación Oral/Oral communication

Toxinfecciones alimentarias

Food-related outbreaks

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Moderador/Chairperson:
Salvador de Mateo

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IMPACTO Y CARACTERÍSTICAS EPIDEMIOLÓGICAS DE UN PICO EPIDÉMICO DE SALMONELOSIS

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Introducción: El número de aislamientos de Salmonella notificados al Sistema de Información Microbiológica (SIM) en Bizkaia subió paulatinamente de 604 en el año 1997 a 1.585 en 2002. En este contexto, en los meses de septiembre y octubre de 2002 se produce un pico epidémico de salmonelosis por *S. enteritidis* detectado tanto por el aumento de los brotes notificados como por el de los casos declarados al SIM. A la vista de esta situación decidimos realizar una encuesta epidemiológica a los pacientes con análisis positivos a *S. enteritidis* en estos dos meses, con el objeto de conocer las características epidemiológicas y clínicas de los mismos.
Métodos: Estudio descriptivo de los casos de salmonelosis por *S. enteritidis* durante los meses de septiembre y octubre de 2002 en Bizkaia. Se diseñó una encuesta epidemiológica que recogía información sobre fecha de inicio, síntomas, duración, ingreso en centro hospitalario y días de baja laboral. Se recogía asimismo información relativa a hábitos alimentarios.
Resultados: De los 334 pacientes registrados no localizamos a 110 (33%), la mayoría de ellos porque los datos de filiación eran incorrectos. Cinco casos no responden a la encuesta, 2 no eran casos y 2 habían fallecido. Realizamos, por tanto, 215 encuestas, lo que supone el 64% del total. El 54% de los pacientes encuestados eran mujeres y el grupo de edad con mayor número de casos fue el de menos de 15 años, (el grupo de 15 a 39 años presentaba también una afectación importante). La curva epidémica de inicio de síntomas de los casos presentaba una distribución bimodal, con un primer pico en la segunda semana de septiembre y un segundo pico en la primera y segunda semanas de octubre. Ingresan en un centro hospitalario 57 pacientes (26 %), con una estancia media de 5 días. 55 pacientes han dejado de trabajar durante 718 jornadas laborales con una media de 13 días de baja. Del total de casos encuestados, 84 (39 %) ocurrieron en el contexto de un brote mientras que el resto cursaron de forma esporádica. Se han identificado 48 brotes de los cuales sólo conocíamos 8.
Conclusiones: *1)* Durante los meses de septiembre y octubre de 2002 se produjo en Bizkaia un pico epidémico de salmonelosis, en un contexto de aumento mantenido de la endemia por salmonelosis. *2)* El impacto en salud de este pico epidémico ha sido muy importante. Sólo para el 67% de los casos que hemos podido entrevistar contabilizamos más de 2.000 días de enfermedad, con 273 días de estancia hospitalaria y 718 jornadas laborales perdidas. Dos pacientes han fallecido en los días posteriores al diagnóstico de su salmonelosis, por lo que, aunque desconocemos la causa del fallecimiento, podríamos aproximarnos a una letalidad del 0,6%.

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BRUCELLOSIS OUTBREAK RELATED TO UNPASTEURIZED GOAT CHEESE IN ANDALUSIA (SPAIN), JANUARY - MARCH 2002

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Background: In Spain, brucellosis is the most common zoonosis, even though the annual incidence rate has been steadily decreasing since 1984, with 20 cases per 100.000 inhabitants to 2.34 in 2001. Extremadura and Andalusia are the regions with the highest incidence: 7.17 and 6.06 respectively in 2001. From January to March 2002, four brucellosis cases were notified in close municipalities in Andalusia. An investigation was initiated in order to identify the origin of the outbreak and the risk factors, with the ultimate goal of implementing control measures.
Methods: A case-control study was conducted. Case was defined as an individual who developed brucellosis symptoms, with positive results of serology and/or blood culture, resident in the epidemic territory between January1st to March31st 2002. Three controls per case were randomly selected among outpatients companions visiting the Health Center, excluding persons with any symptom compatible with brucellosis. The odds ratio were ascertained for all the factors: contact and/or ingestion of raw milk and unpasteurized cheese from infected animals. Goat samples (milk and different tissues) from the farmhouse suspicious of elaborating unpasteurized cheeses were investigated, as well as clinical and cheese specimens.
Results: Eleven cases were identified: nine suspects and two confirmed. Ingestion of unpasteurized cheese was a risk factor with an OR of 21.6 (CI95% 1.6-639.8). Unpasteurized goat cheese produced in a farmhouse located in the epidemic area was associated with the disease, with an OR of 37.4 (CI95% 3.2-2201.2). An extra animal disease eradication campaign was conducted in April 2002, where 26 goats and 2 ewes were positive, and slaughtered in May. Of several samples taken for serotyping, Brucella-mellitensis-serotype was identified in goats infected tissue and milk and from the blood specimens. All samples were serotyped in one laboratory. The farmhouse's herd got infected with brucellosis probably in October 2001, after an enlargement of the herd size. The first animal disease eradication campaign after this event took place in November.Milk production in this farmhouse had exceeded the European Union quota before the end of the year. Before the laboratory tests results were available, cheeses were elaborated with the surplus milk, without previous pasteurisation since it impairs ripening. As production was on a small scale, the distribution was only local.
Conclusions: *a)* Brucella-mellitensis-serotype 3 was identified as the causal agent, *b)* The vehicle was unpasteurized cheese elaborated in the farmhouse located in the epidemic area, *c)* Surplus of the EU production quota assigned to this farm could have favoured the occurrence of the outbreak. Preventive measures stopped the outbreak and included withdrawal of infectious cheeses, alert of Town-Councils and a animal disease eradication campaign in the incriminated farmhouse.

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OUTBREAK OF SALMONELLA ENTERITIDIS IN A THERAPEUTIC COMMUNITY OF DRUG ADDICTS IN SPAIN. DECEMBER 2001 - JANUARY 2002

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Background: On 02/01/2002, an outbreak of enterocolitis among residents of a therapeutic-community was notified to Alert-System. The ex-drug-addicts have all their meals in the center preparing all their food by themselves. An investigation was started in order to identify the causes of the outbreak, the risk-factors and the vehicle.
Method: A retrospective cohort-study was conducted between participants of the dinner 31 December in the community. Cases were defined as any participants-dinner who developed enterocolitis between 1st and 2nd January. Relative Risk (RR) and the attributable fraction (AF) were analysed for the consumed food-items. Doses-response was calculated by Cox regression. The facilities were inspected, the process of food-handling was analysed. Faecal samples were taken from all food-handlers and ill community-members as well as of the surface of kitchen utensils.
Results: Twelve sick persons were identified: eight suspects and four confirmed.(50- participants-dinner). Boiled-egg was a RR of 7.50 (95% IC 1.83-30.68), an AF of 86.67. A dose response association was found with number of boiled-eggs consumed (RR 1/2 egg =1.27 95% IC 0.11-14.08; RR1egg = 34.25 95% IC 6.46-181.38; RR 1 y 1/2 egg RR= 62.82 95% IC 8.73-481.79). The faecal samples identified a healthy carrier of salmonella enteritidis among the food-handlers who had prepared the boiled-eggs. The same strain was isolated in samples from the ill community members and the surface of a vessel. Boiled-eggs were conserved at environment temperature for five hours after preparation.
Conclusions: *a)* Salmonella enterica serovar enteritidis was identified as the causal agent. *b)* The reservoir was a healthy carrier, handling-food without following the recommended hygienic measures. *c)* The food vehicle was boiled-egg contaminated by the carrier. *d)* The bacterial growth was favored by food-conservation at environment temperature.

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EVALUACIÓN DE LA CALIDAD DEL SISTEMA DE ALERTAS EN LA PROVINCIA DE ALMERÍA EN UN PERÍODO DE DIEZ AÑOS. PROPUESTAS DE MEJORA DE LA INFORMACIÓN

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Antecedentes y objetivos: En Andalucía se establece en el año 1992, una normativa para Alertas Epidemiológicas. Con el Decreto 66/1996 se constituye el Sistema de Vigilancia Epidemiológica en dicha Comunidad (SVEA). La Consejería de Salud establece en el 2002 unos indicadores de evaluación de calidad de las alertas (sensibilidad, comunicación e intervención).
Objetivos planteados: Evaluar las alertas totales y las Toxiinfecciones Alimentarias (TIA) declaradas en la provincia de Almería, en el período 1992-2002, mediante indicadores de sensibilidad, y establecer propuestas de mejora de la calidad del sistema.
Métodos: Estudio observacional descriptivo. *Población de estudio:* Alertas declaradas en el período 1992-2002. Variables: Alertas notificadas, tipos de alertas, TIA declaradas, número de afectados en alertas y TIA, número de hospitalizados en alertas y TIA, Distrito Sanitario, ámbito de ocurrencia de las TIA. *Fuentes de información:* SVEA, programas informáticos de alertas y TIA, informes de brotes y otras alertas. *Análisis de datos:* Estudio descriptivo de las variables anteriores en dicho período y cálculo de indicadores de sensibilidad (tasas de alertas por provincia y por Distritos Sanitarios, media de afectados por alerta y TIA, porcentaje de hospitalizados, porcentaje de TIA detectadas en el ámbito domiciliario).
Resultados: En el período analizado se han estudiado 328 alertas, el año con mayor número es el 2001 (13,7%). De las cuales 209 corresponden a TIA (63,7%). La mayor tasa de alertas en la provincia corresponde al año 2001 (8,68), por Distritos Sanitarios, el del Levante Alto Almanzora es el que presenta mayor tasa (14,23) en el mismo año. Con respecto a las TIA, la mayor tasa provincial corresponde también al año 2001 (5,21), y por Distritos, igualmente el del Levante es el que presenta una tasa más elevada (12,45). La media de afectados por alerta es de 11,8 y en las TIA es de 9,5. El porcentaje de hospitalizados por alerta es de 12,3% y el de TIA es de 16,8%. El porcentaje de TIA en ámbito domiciliario es de 57,4%.
Conclusiones: El estudio ha permitido evaluar la calidad del sistema de alertas mediante indicadores de sensibilidad. Las tasas de alertas y TIA anuales superan ligeramente el promedio de Andalucía. En cuanto a las tasas por Distritos las del Levante son superiores a la media provincial, sobre todo en los últimos 6 años. Se considera que la media de afectados por alerta y TIA, se encuentra en torno a la andaluza. El porcentaje de hospitalizados es variable en el período de estudio, y el de alertas detectadas en el ámbito domiciliario coincide en general con el de Andalucía. Es necesario seguir mejorando la calidad del sistema de alertas (demora de comunicación, informes finales,...).

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WATERBORNE OUTBREAK AMONG SPANISH TOURIST IN A HOLIDAY RESORT IN DOMINICAN REPUBLIC AUGUST 2002

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Introduction: In September 2002, an outbreak of gastroenteritis among persons who stayed at the same holiday resort in Dominican Republic during August 2002 was notified to the National Centre of Epidemiology (CNE). The cases had travelled to the resort on different dates. Entamoeba hystolitica cysts had been identified by stool microscopy among several persons who sought medical attention in Dominican Republic. The CNE informed the Dominican Republic Health Authorities and conduct an epidemiological investigation in coordination with seven Regional Epidemiology Services.
Method: A retrospective cohort study was conducted to determine the magnitude of the event and potential risk factors for development of illness. 685 persons from Spain have been visiting the hotel from the 02/08/02 to 14/08/02. A randomised sampling was done using Epiinfo. A case was defined as a person having visited the hotel during the epidemic period that develops diarrhoea (equal or greater than three loose stools per day) and abdominal pain and vomiting or fever or chills. Persons were interviewed by telephone using a questionnaire specifically designed and were advised to seek medical attention if they still feel sick. Stool samples were collected and analysed by direct microscopy and culture. The kitchens and the drinking water supply of the affected resort were inspected by the Dominican Republic Health Authorities and several samples from water and food were also analysed.
Results: From the 37 persons interviewed, 12 of them were cases. The attack rate was 32%. Consequently, 216 spanish tourist have probably developed disease. Water consumption from the resort water system was the only risk factor associated with the presence of symptoms (RR= 3.55; IC95%=1.13 - 10.99). The resort is served by an unique water distribution system and has his own well. Bacteriological cultures of the water and food yielded coliforms, indicating faecal contamination during food manipulation. From the 51 clinical samples tested, three cases were positive to Salmonella and *Aeromonas hydrophila* (one case), *Giardia lamblia* and *Echinoccocus*. There were no cases positive for *Entamoeba histolytica*.
Conclusions: The epidemiological evidence confirms the outbreak as due to consumption of water from a contaminated supply system. Faecal specimens from tourist returned from the affected resort revealed multiple pathogens and the sample from the drinking water system confirmed faecal contamination. To avoid similar situations in the future, we recommend to guarantee the use of safe drinking water in the resort, implementing measures to monitorize exhaustively the water quality and to improve hygienic standards for food manipulation and conservation. Since the number of gastrointestinal outbreaks among tourist is currently increasing, there is a need to define a protocol including all the competent authorities.