**SUPPLEMENTARY DATA**

**Supplementary Table S1**

Impact of a 20 h infusion of saline or lipopolysaccharide (LPS; 2 ng/kg LW per min), either with or without six supplemental amino acids (AA), on arterial concentrations of albumin, total protein, glucose, lactate and lymphocytes in 11 sheep.

(Predicted means with the standard errors of the difference (SED) between means for the effect of treatment)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | treatment | | |  | P | | |
|  | Control | LPS | LPSAA | SED | Treatment\* | Period\* | LPS† |
| Albumin (g/l) | 27.3 | 26.3 | 25.9 | 1.10 | NS | NS | NS |
| Protein (g/l) | 61.9 | 60.9 | 59.3 | 2.35 | NS | NS | NS |
| Glucose (mM)¶ | 4.12 | 2.78 | 3.27 | 0.487 | 0.019 | NS | 0.006 |
| Lactate (mM) | 1.34 | 1.13 | 1.38 | 0.428 | NS | NS | NS |
| Lymphocytes(109 cells/l) ‡ | 4.33a | 12.82b | 9.67b | 1.917 | <0.001 | NS | <0.001 |

\* Analysed by random effects model, with sheep and period within sheep as random effects and period, treatment plus their interaction as fixed effects, where treatment was either saline, LPS (n=6), or LPS+AA (n=5) infusion. There were no period x treatment effects (P>0.05). Where there was a treatment effect (P<0.05), post-hoc t-test was performed to compare the treatment means, where values in rows with unlike superscripts are significantly different (P<0.05).

† Analysed by random effects model as described above, where treatment reflects LPS status, i.e. either saline or LPS (both alone and in combination with AA).

‡ One missing value (for LPS treatment)

**Supplementary Table S2**

Effect of 20 h infusion of saline or lipopolysaccharide (LPS; 2 ng/kg LW per min), either with or without six supplemental amino acids (AA), on synthesis rates of plasma albumin, total plasma protein and lymphocytes in 11 sheep

(Predicted means with the standard errors of the difference (SED) between means for the effect of treatment)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | treatment | | |  | *P* | | |
|  | Saline | LPS | LPS+AA | SED | Treatment\* | Period\* | LPS status† |
| Albumin  FSR (%/d)  ASR (g/d) | 4.67a  2.92a | 2.00b  1.35b | 2.77b  1.38b | 0.634  0.412 | <0.001  <0.001 | NS  NS | <0.001  <0.001 |
| Total protein  FSR (%/d)  ASR (g/d) | 11.4a  15.2a | 16.2b  19.2b | 15.1b  21.2b | 1.31  1.72 | <0.001  0.006 | 0.020‡  0.012‡ | <0.001‡  0.002‡ |
| Lymphocytes  FSR (%/d)  ASR (mg/d) § | 6.33a  26.3a | 10.95b  112.9b | 9.68ab  90.5b | 2.25  31.63 | 0.042  0.006 | 0.017‡  0.036‡ | 0.027‡  0.002‡ |

LPS lipopolysaccharide, AA amino acids infused, FSR fractional synthesis rate, ASR absolute synthesis rate

\* Analysed by random effects model, with sheep and period within sheep as random effects and period, treatment plus their interaction as fixed effects, where treatment was either saline, LPS (n=6), or LPS+AA (n=5) infusion. There were no period x treatment effects (P>0.05). Where there was a treatment effect (P<0.05), post-hoc t-test was performed to compare the treatment means, where values in rows with unlike superscripts are significantly different (P<0.05).

† Analysed by random effects model as described above, where treatment reflects LPS status, i.e. either saline or LPS (both alone and in combination with AA).

‡ Values lower during period 2.

§ One missing value (LPS).