Table 1-4　被験物質の比較（独立行政法人国立健康栄養研究所「健康食品の安全性・有効性情報」より抜粋[1]）［続き］.

| 食品名 | ヘルシーリセッタ | ヘルシーコレステ | 健康サララ |
|---|---|---|---|
| 本研究での略称 | HR | HC | KS |
| ヒト試験<br>（安全性） | 静脈経腸栄養 17, 1-7 (2002) | Circ Res 6, 373-382, 1958<br>Pediatrics 89, 138-142, 1992<br>Food Chem Toxicol 37,<br>1127-1138, 1999<br>Eur J Clin Nutr 53, 319-3287,<br>1999<br>J Oleo Sci 52, 205-213, 2003 | J Oleo Sci 50, 649-655, 2001<br>J Oleo Sci 53, 9-16, 2004 |
| 動物・その他の試験<br>（安全性） | 応用薬理 4, 871-882 (1970)<br>Food Chem Toxicol 38, 79-98, 2000 | Circ Res 6, 373-382, 1958<br>Food Chem Toxicol 37, 521-532,<br>1999<br>社内報告書, 2002<br>社内報告書, 2002 | Food Chem Toxicol 37, 521-532, 1999<br>Food Chem Toxicol 37, 683-696, 1999 |
| ヒト試験<br>（有効性） | Asia Pacific J Clin Nutr 12,<br>151-160, 2003 | J Oleo Sci 52, 285-294, 2003<br><br>Asia pacific J Clin Nutr 12,<br>282-291, 2003 | J Oleo Sci 50, 649-655, 2001<br><br>J Oleo Sci 53, 9-16, 2004 |
| 動物・その他の試験<br>（有効性） | J Oleo Sci 51, 699-703, 2002 | J Oleo Sci 52, 229-237, 2003 | J Oleo Sci 50, 217-223, 2001 |

1) ホームページ：https://hfnet.nih.go.jp/contents/sp_health.php

Table 2 Fatty acid compositions in the diets (%)

| Fatty acids | | Control | HR | HC | KS |
|---|---|---|---|---|---|
| 8:0 | Caprylic acid | 0 | 8.4 | 0 | 0 |
| 10:0 | Capric acid | 0 | 2.8 | 0 | 0 |
| 14:0 | Myristic acid | 0 | 0 | 0.3 | 0.2 |
| 16:0 | Palmitic acid | 11.4 | 5.1 | 13.5 | 12.1 |
| 16:1 | Palmitoleic acid | 0 | 0.2 | 0.2 | 0 |
| 18:0 | Stearic acid | 4.1 | 1.8 | 2.0 | 4.0 |
| 18:1 | Oleic acid | 22.4 | 53.5 | 47.9 | 19.0 |
| 18:2 n-6 | Linoleic acid | 53.7 | 18.1 | 29.0 | 53.1 |
| 18:3 n-3 | α-Linolenic acid | 6.9 | 7.4 | 4.5 | 10.0 |
| 20:0 | Arachidic acid | 0.3 | 0.5 | 0.7 | 0.3 |
| 20:1 | Eicosenoic acid | 0.2 | 1.0 | 0.8 | 0.2 |
| 22:0 | Behenic acid | 0.3 | 0.3 | 0.3 | 0.3 |
| 24:0 | Lignoceric acid | 0.1 | 0.2 | 0.3 | 0.2 |
| 24:1 | Tetracosenoic acid | 0 | 0.1 | 0 | 0 |
| Unidentified | | 0.6 | 0.6 | 0.5 | 0.6 |
| n-3/n-6 ratio | | 0.128 | 0.409 | 0.155 | 0.188 |

Table 3 Sterols in the diets (mg/100 g)

| Sterols | Cont | HR | HC | KS |
|---|---|---|---|---|
| Cholesterol | 6 | 6 | 6 | 6 |
| Brassicasterol | 0 | 5 | 14 | 0 |
| Campesterol | 5 | 15 | 62 | 10 |
| Stigmasterol | 4 | 0 | 42 | 8 |
| 7-Ergostenol | 0 | 0 | 2 | 0 |
| β-Sitosterol | 12 | 23 | 123 | 72 |
| Isofukosterol | 0 | 2 | 10 | 5 |
| 7-Stigmastenol | 0 | 0 | 4 | 7 |
| Avenasterol | 0 | 0 | 2 | 6 |
| Total phytosterol | 21 | 45 | 259 | 108 |
| Phytosterol/ Cholesterol ratio | 3.5 | 7.5 | 43.2 | 18.0 |

Table 4

SHRSP

| | Ratio | Up | Down |
|---|---|---|---|
| Cont : HR | HR/Cont | 4 (2) | 18 (2) |
| Cont : HC | HC/Cont | 1 (0) | 15 (2) |
| Cont : KS | KS/Cont | 2 (2) | 60 (1) |

WKY rats

| | Ratio | Up | Down |
|---|---|---|---|
| Cont : HR | HR/Cont | 2 (1) | 5 (1) |
| Cont : HC | HC/Cont | 6 (3) | 3 (0) |
| Cont : KS | KS/Cont | 2 (0) | 5 (2) |

Up: Gene expressions in HR, HC or KS groups were higher more than 4 times than that in Cont group, respectively.
Down: Gene expressions in HR, HC or KS groups were lower more than 4 times than that in Cont group, respectively.
Values represent the numbers of genes, and those in parentheses represent the numbers of genes changed more than 8 times in expression ratio.

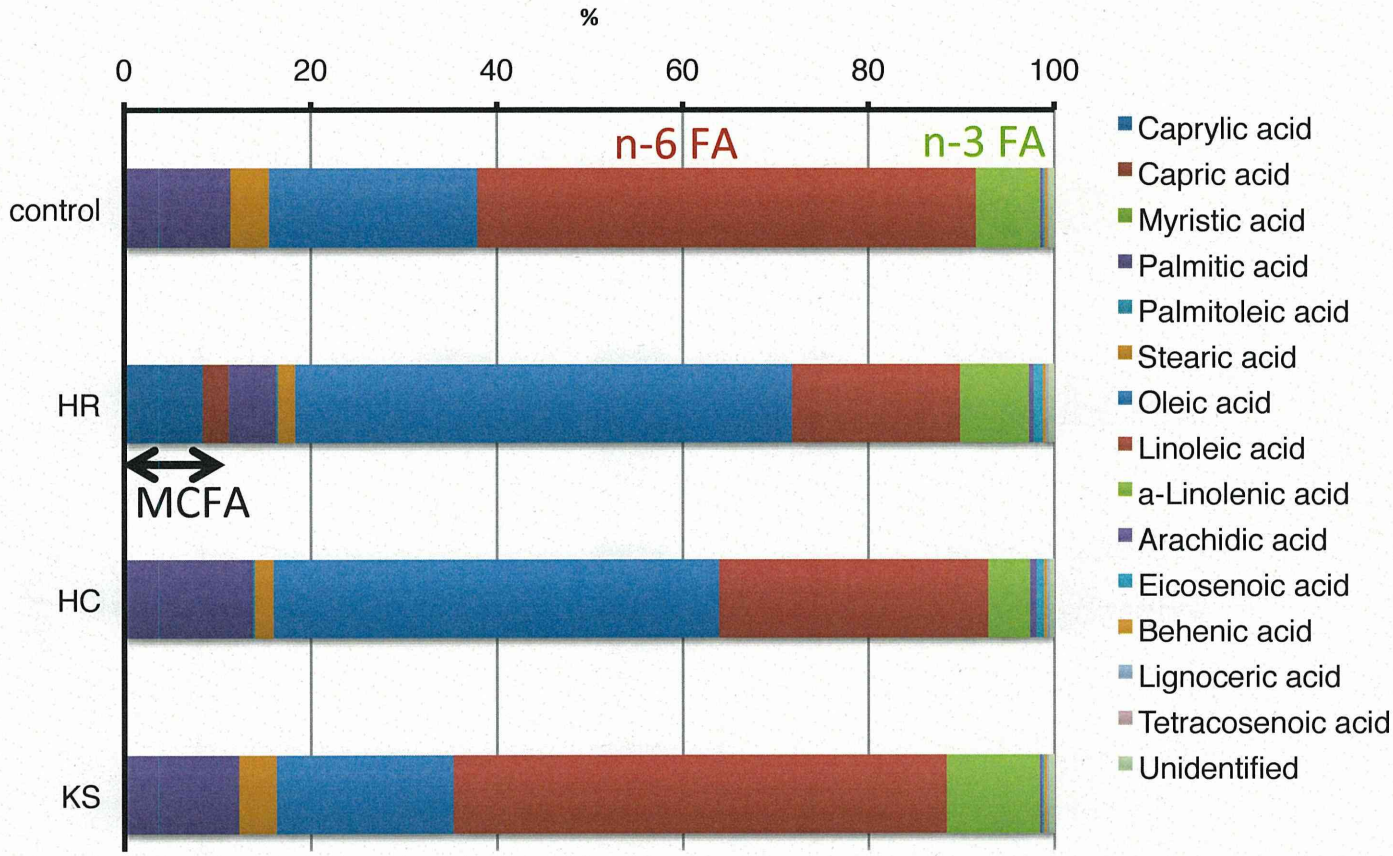


Figure 1 Fatty acid compositions of Cont, HR, HC and KS diets

n-6 FA, n-6 unsaturated fatty acid; n-3 FA, n-3 unsaturated fatty acid; MCFA, medium-chain fatty acids

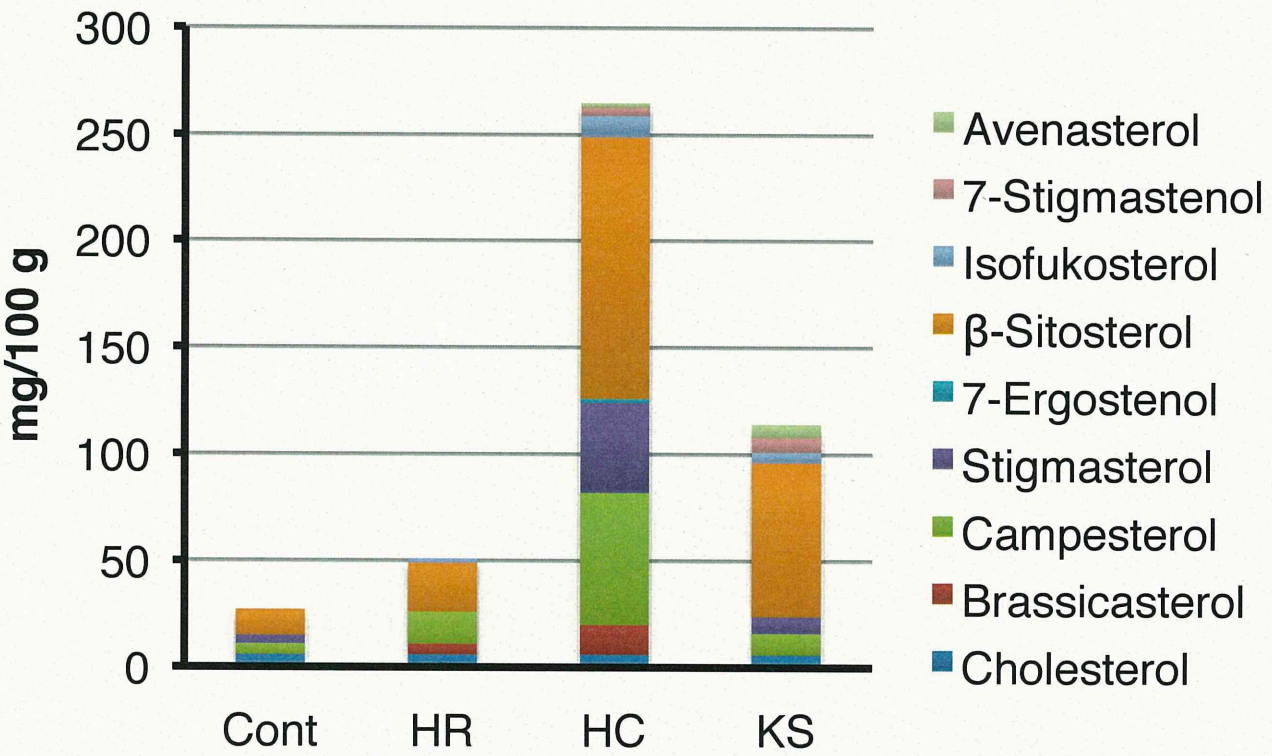


Figure 2 Sterol contents in Cont, HR, HC and KS diets (per 100 g diets)

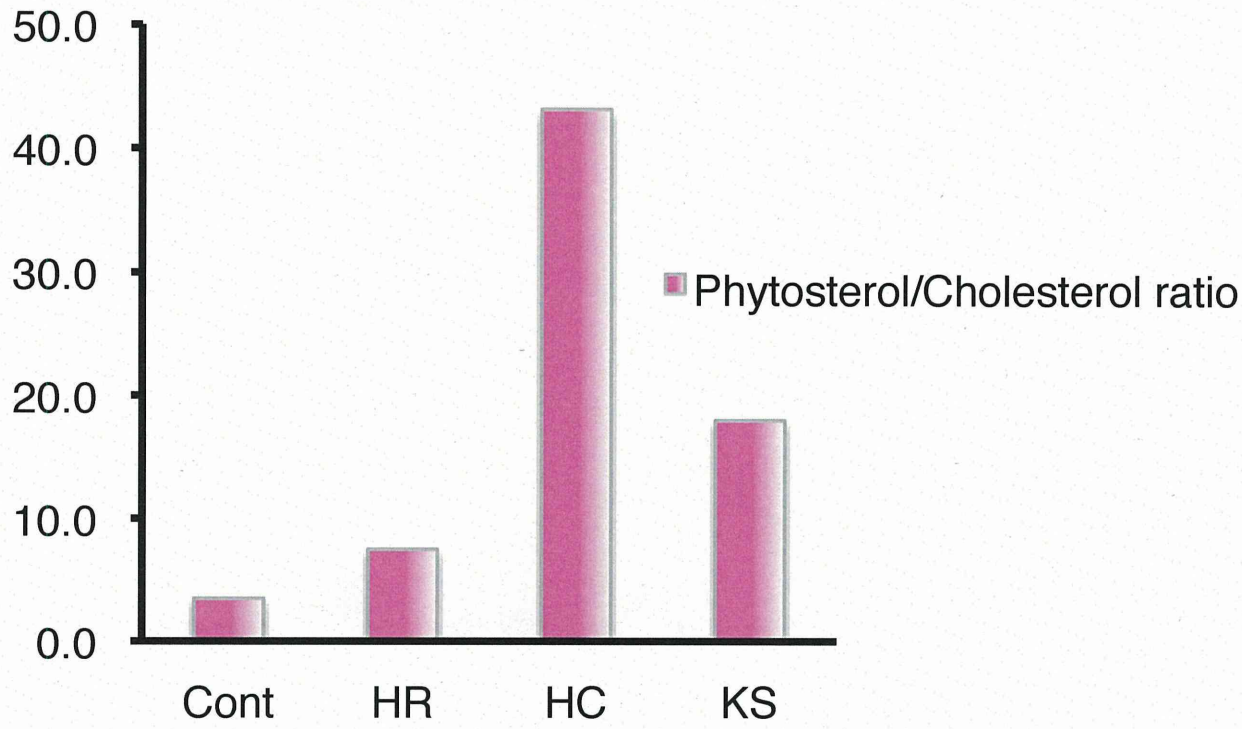


Figure 3 Phytosterol/cholesterol ration of Cont, HR, HC and KS diets

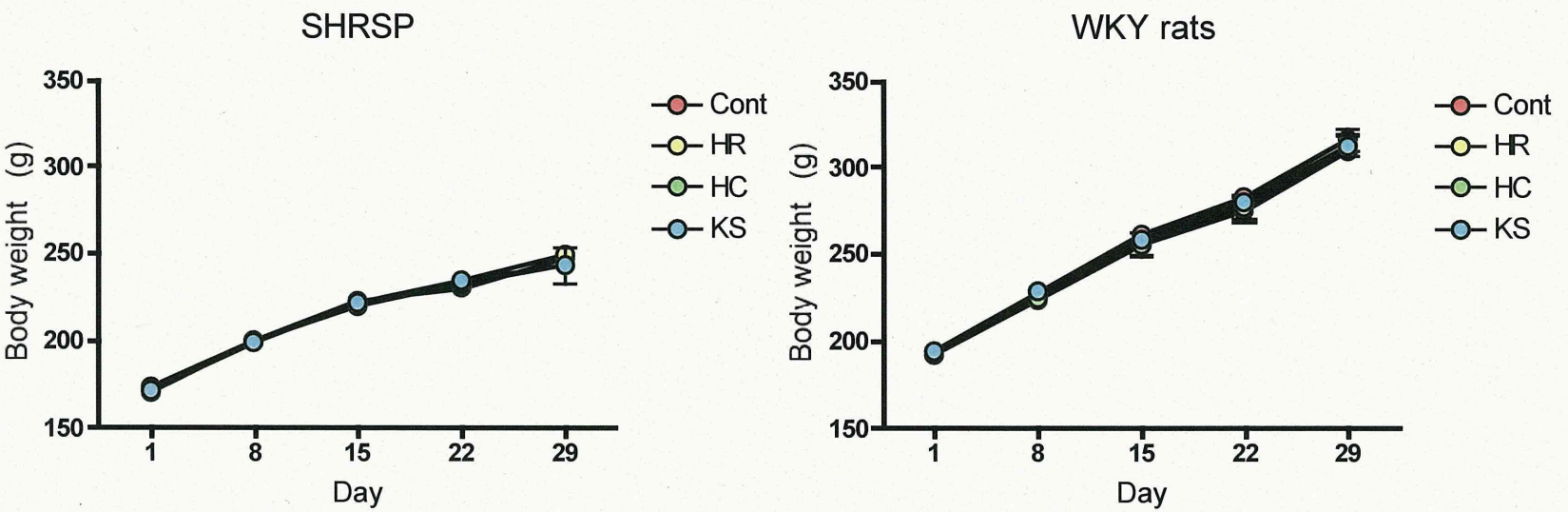


Figure 4 Body weight changes in SHRSP and WKY rats fed diets containing 7 w/w% Tokuho oils for 4 weeks

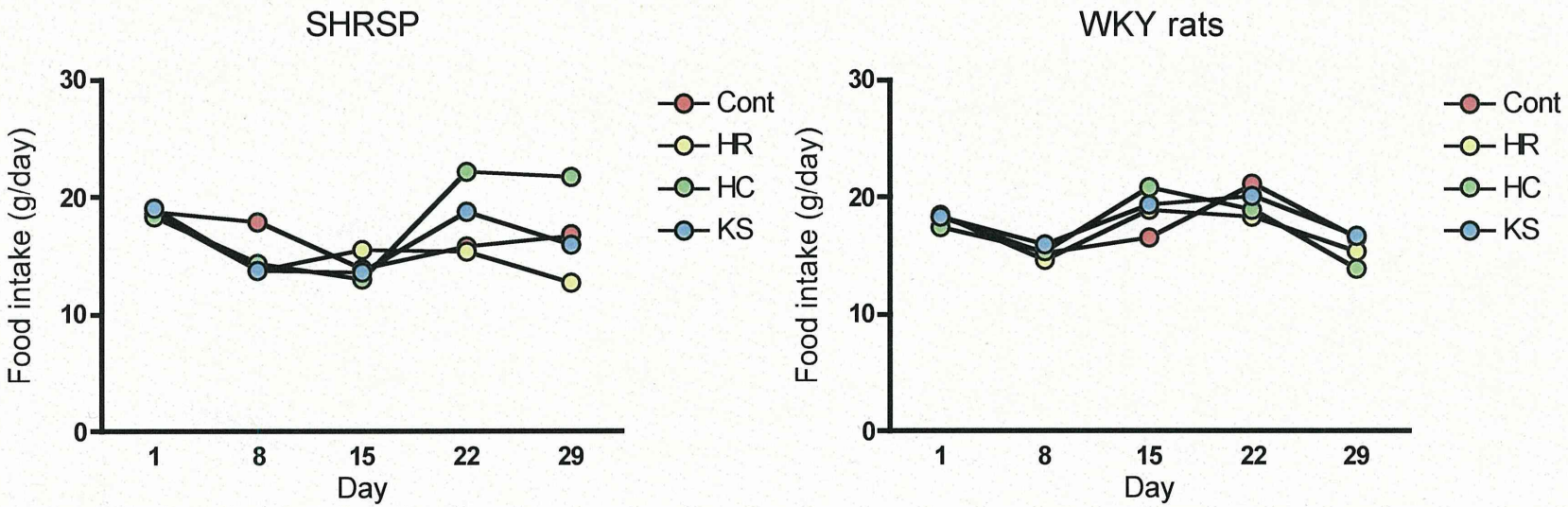


Figure 5 Food intake in SHRSP and WKY rats fed diets containing 7 w/w% Tokuho oils for 4 weeks

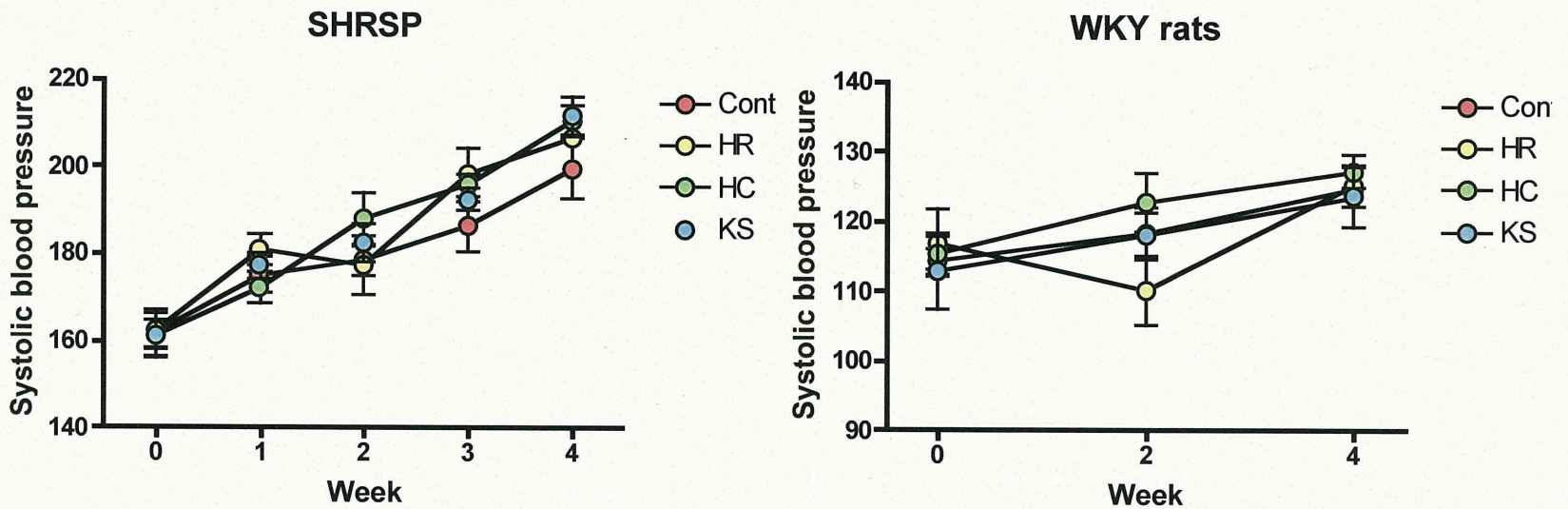


Figure 6 Systolic blood pressure in SHRSP and WKY rats fed diets containing 7 w/w% Tokuho oils for 4 weeks.

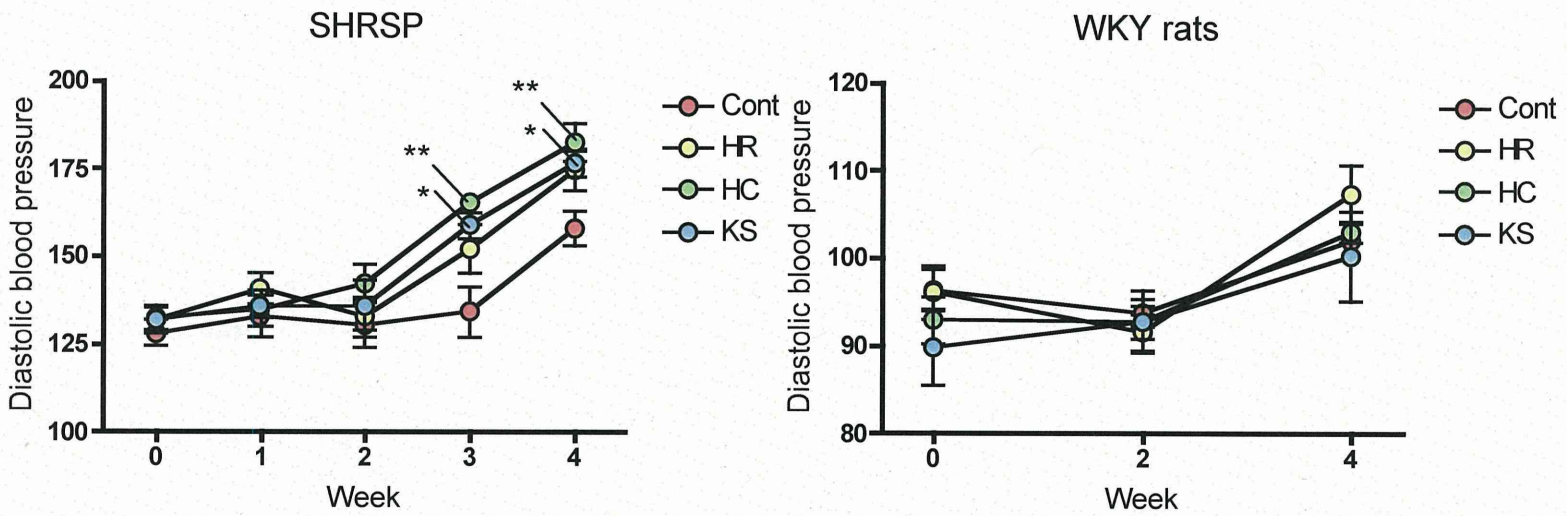


Figure 7 Diastolic blood pressure in SHRSP and WKY rats fed diets containing 7 w/w% Tokuho oils for 4 weeks. **p<0.01, *p<0.05, significantly different from the value of Cont group (Dunnett's test)

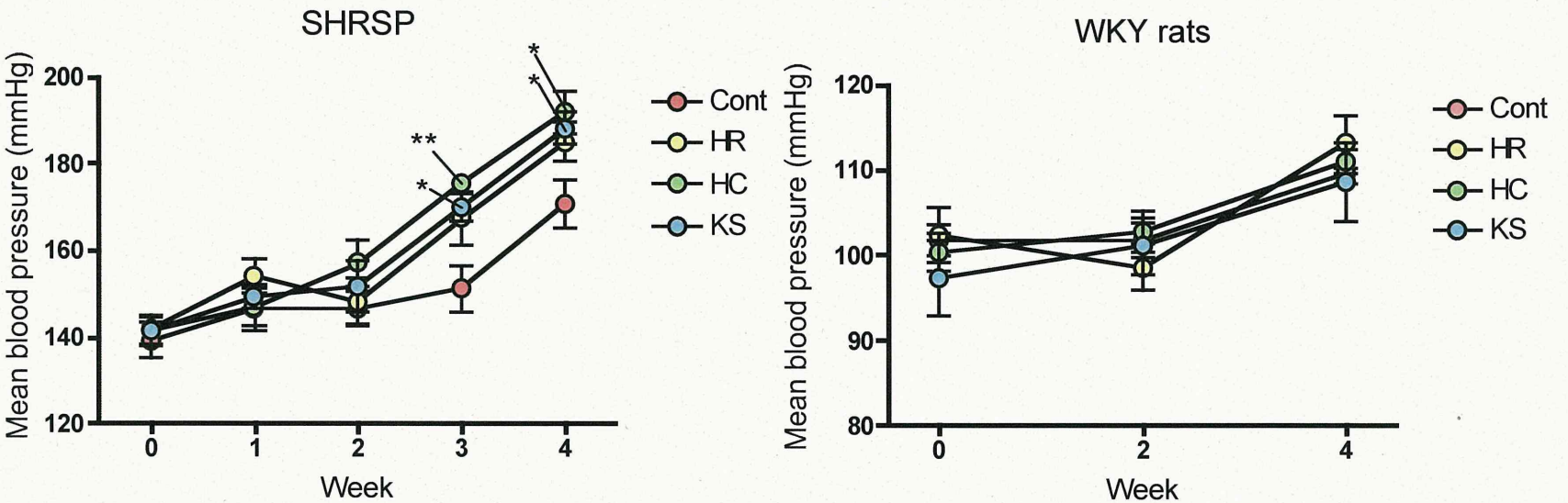


Figure 8 Mean blood pressure in SHRSP and WKY rats fed diets containing 7 w/w% Tokuho oils for 4 weeks.
**p<0.01, *p<0.05, signifcantly different from the value of Cont group (Dunnett's test)

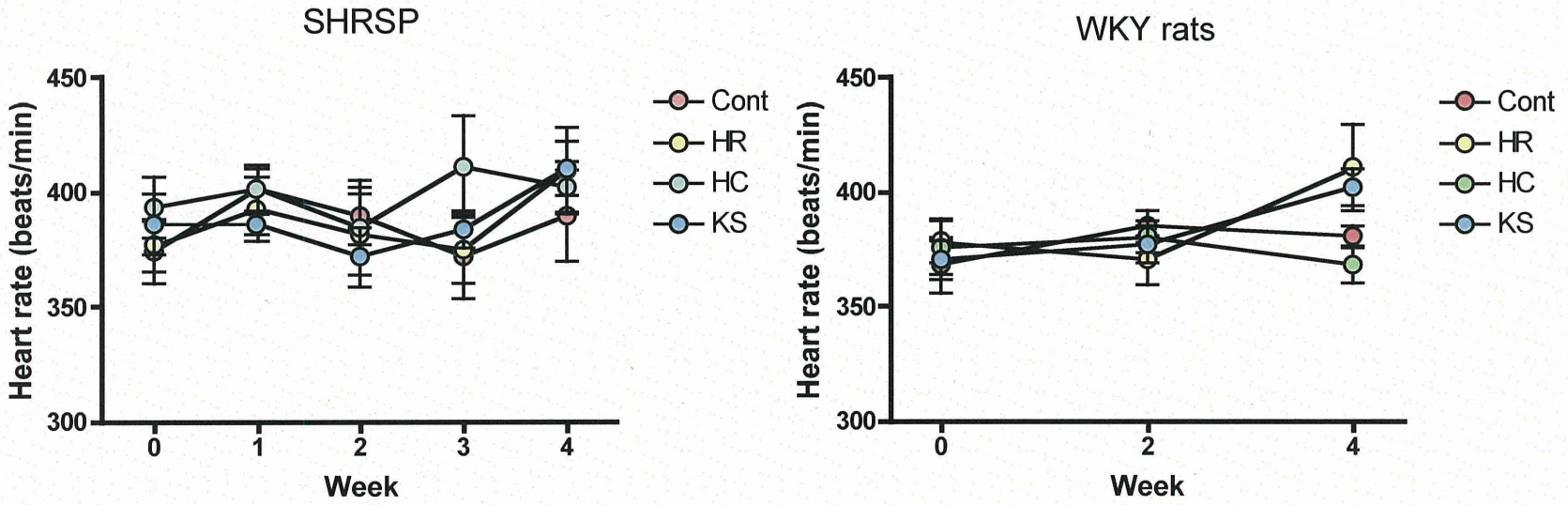


Figure 9 Heart rate in SHRSP and WKY rats fed diets containing 7 w/w% Tokuho oils for 4 weeks.

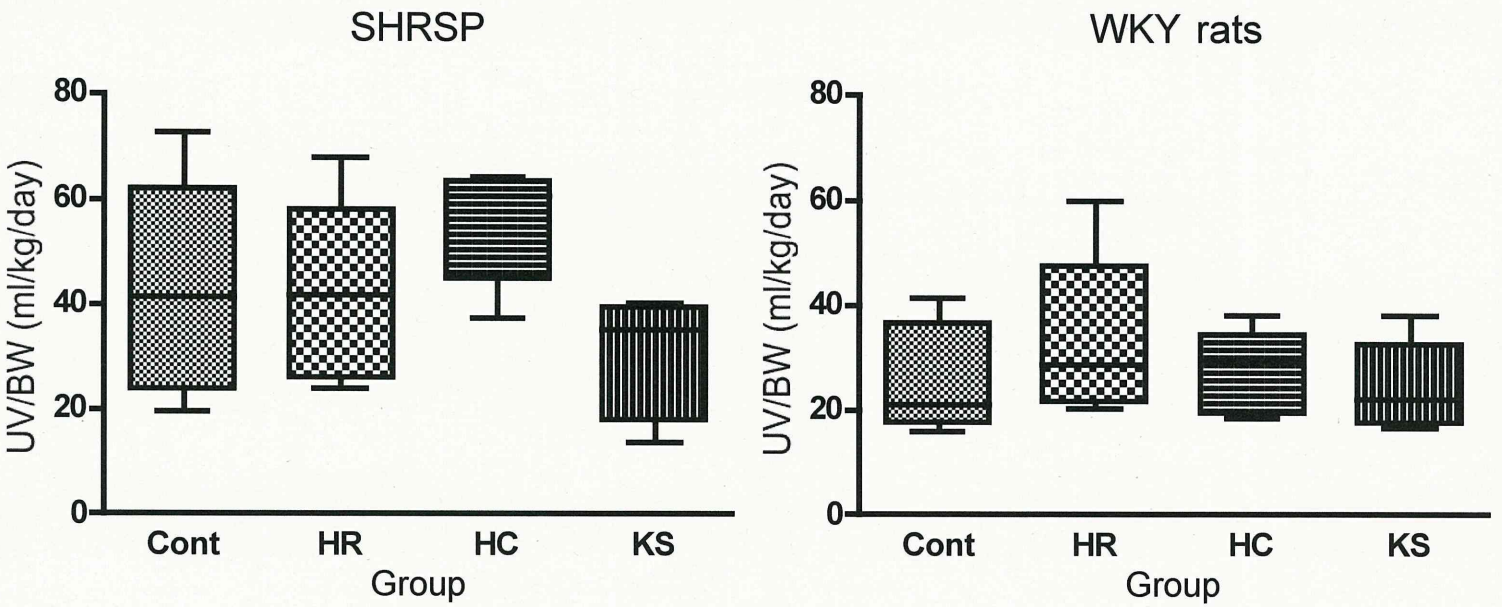


Figure 10 Urinary volume in SHRSP and WKY rats fed diets containing 7 w/w% Tokuho oils for 4 weeks

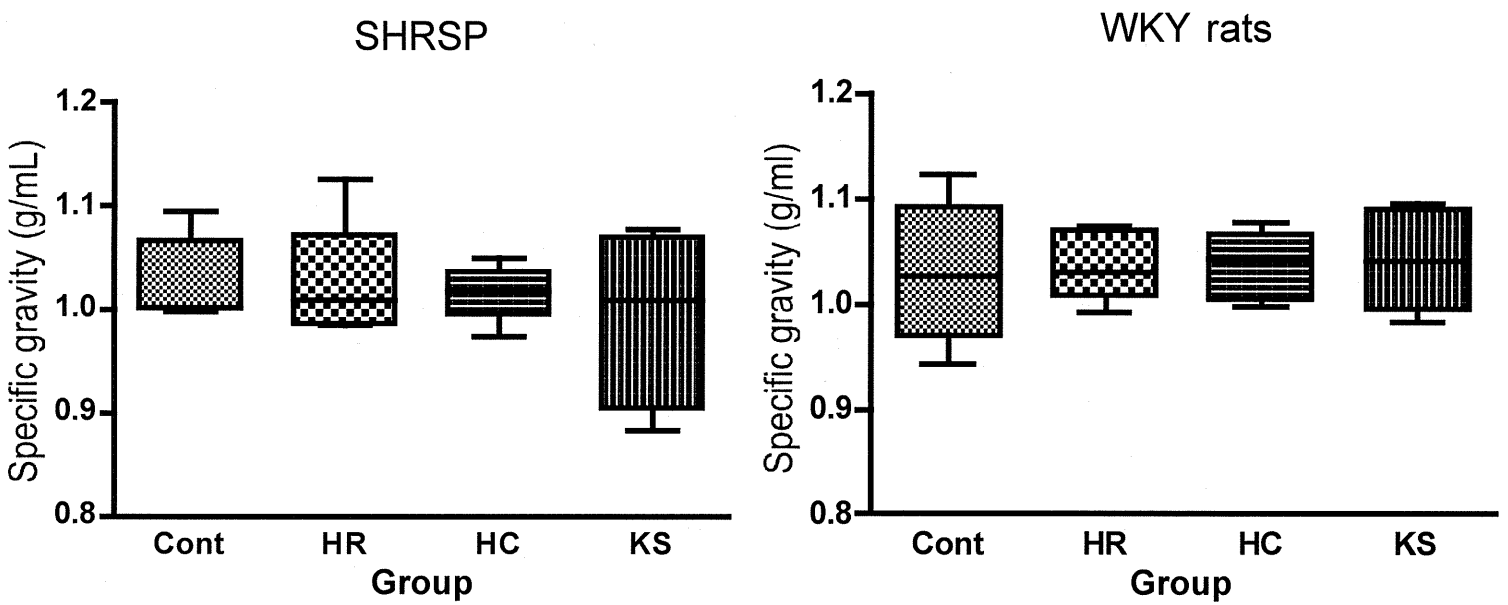


Figure 11 Specific gravity of urine in SHRSP and WKY rats fed diets containing 7 w/w% Tokuho oils for 4 weeks

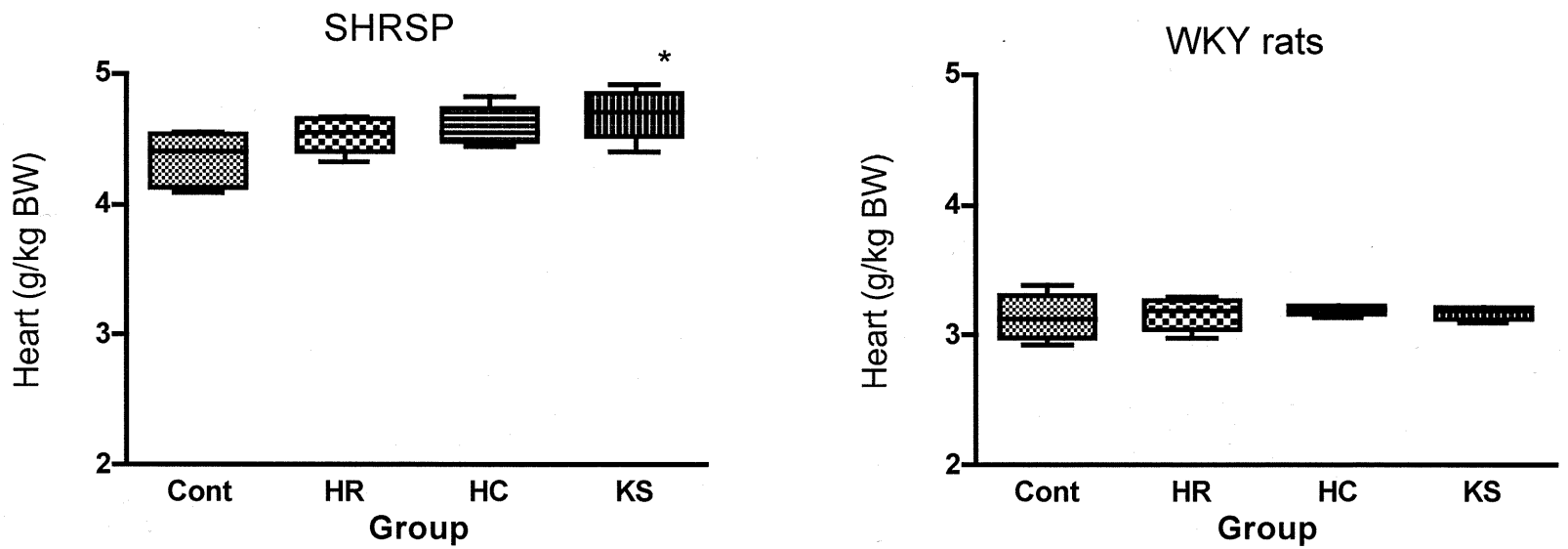


Figure 12 Relative heart weights of SHRSP and WKY rats fed diets containing 7 w/w% Tokuho oils for 4 weeks
*$p<0.05$, significantly different from the value of Cont group (Dunnett's test)

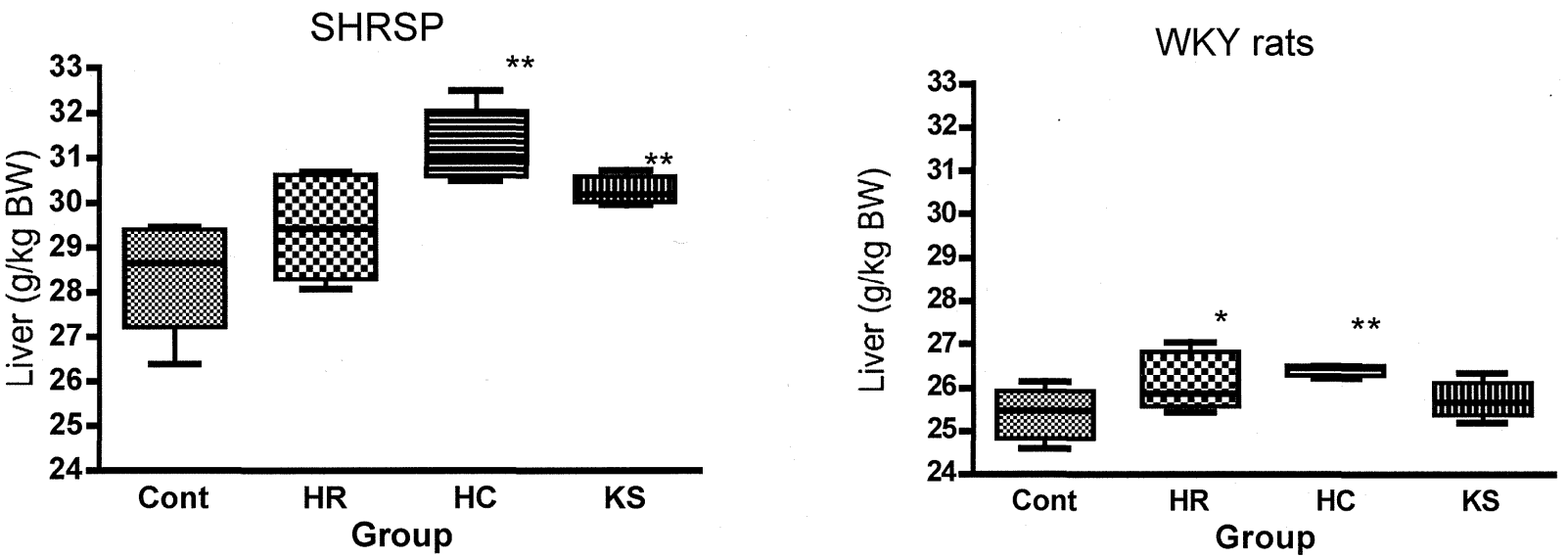


Figure 13 Relative liver weights of SHRSP and WKY rats fed diets containing 7 w/w% Tokuho oils for 4 weeks
**$p<0.01$, *$p<0.05$, significantly different from the value of Cont group (Dunnett's test)

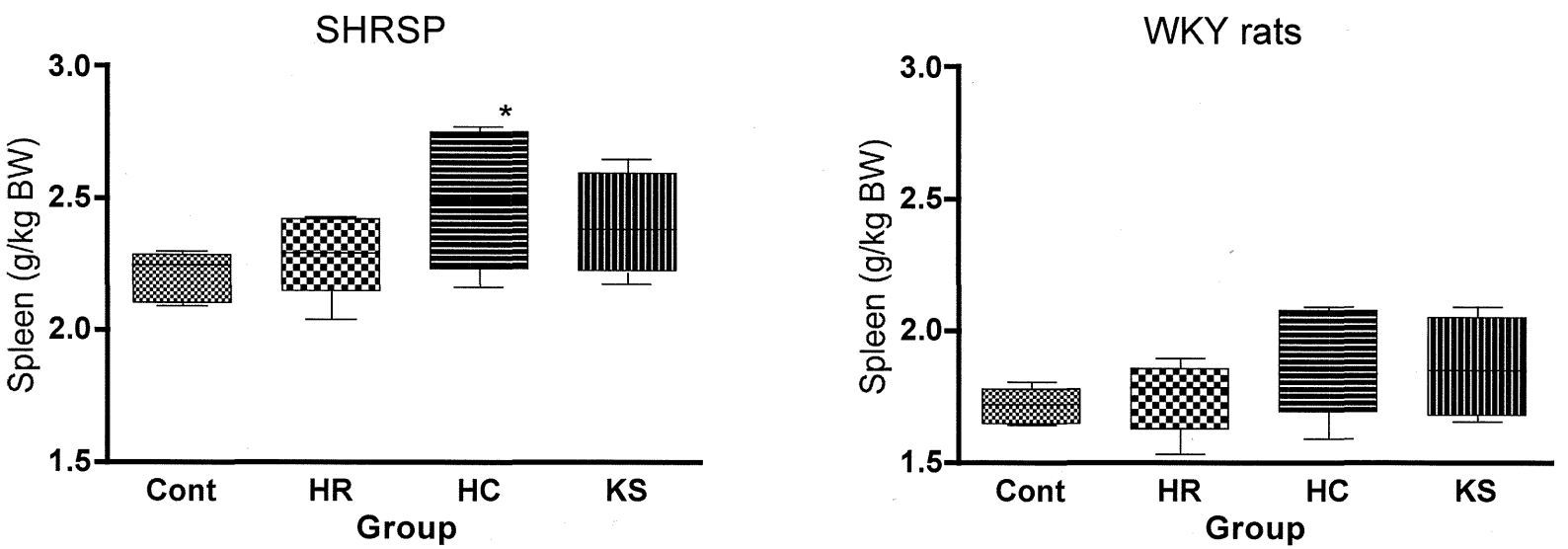


Figure 14 Relative spleen weights of SHRSP and WKY rats fed diets containing 7 w/w% Tokuho oils for 4 weeks
*$p<0.05$, significantly different from the value of Cont group (Dunnett's test)

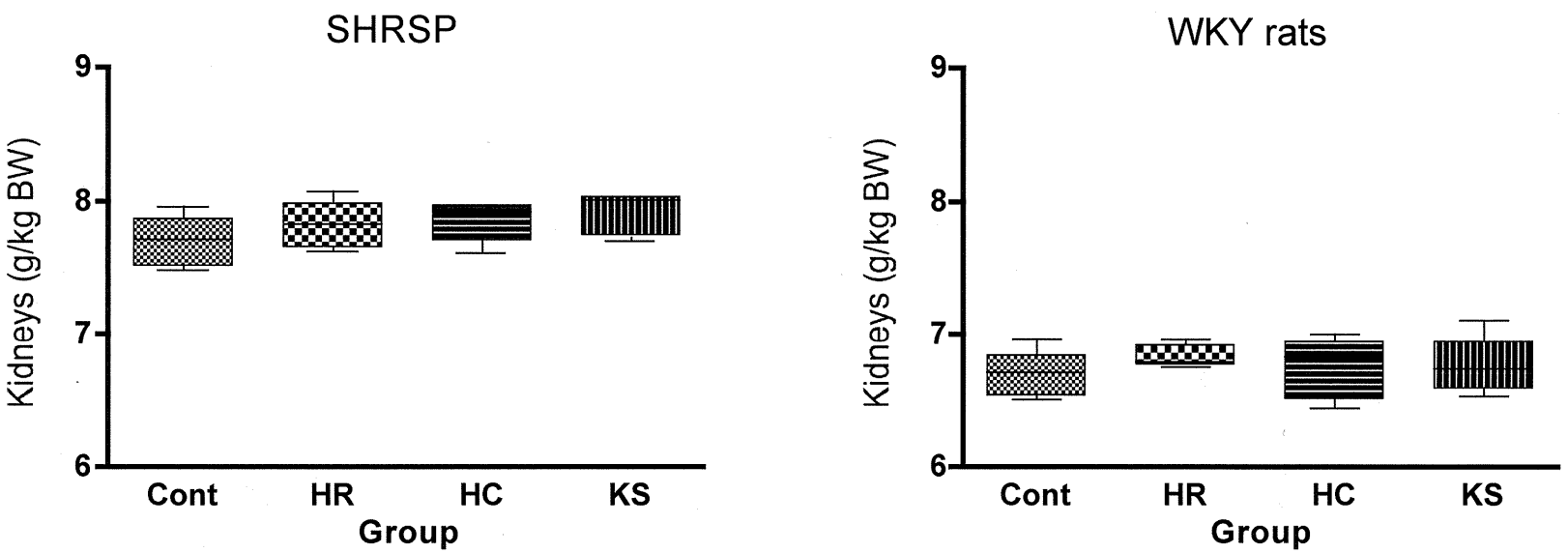


Figure 15 Relative kidney weights of SHRSP and WKY rats fed diets containing 7 w/w% Tokuho oils for 4 weeks

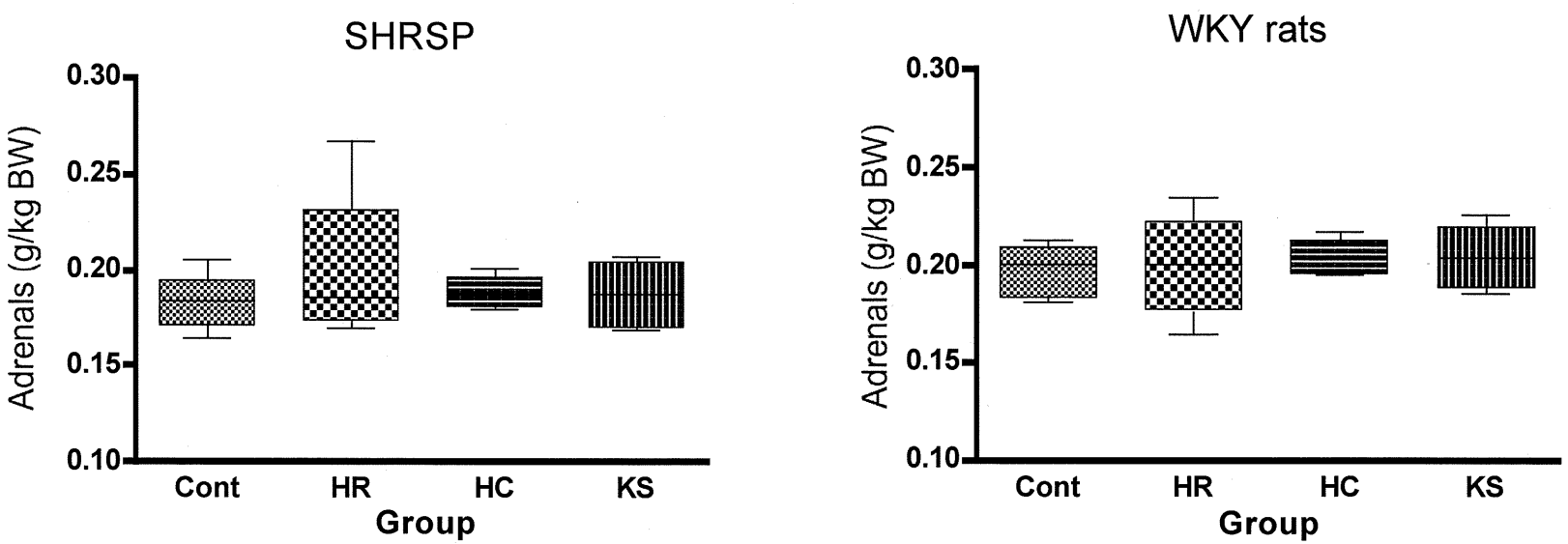


Figure 16 Relative adrenal weights of SHRSP and WKY rats fed diets containing 7 w/w% Tokuho oils for 4 weeks