

**Table 2.15. PCR case-control studies of *helicobacter pylori* and hepatocellular carcinoma (HCC)**

Study	Cases	Controls	Detection Method	Exposed Cases	Exposed Controls	Primer	Comments
Avenaude <i>et al</i> (2000) France	5 HCC	8 with benign liver conditions	PCR of liver biopsy samples	5/5	1/8	16s rDNA primer	Confounders not determined in controls
Nilsson <i>et al</i> (2001) Sweden	16 HCC	20 with metastatic liver disease	PCR from liver tissue DNA extracted from paraffin embedded samples	12/16	0/20	16s rDNA primer	No information on potential confounders
Dore <i>et al</i> (2002) Italy	11 HCC	18 with chronic hepatitis without cirrhosis ; 12 with cirrhosis	PCR of liver biopsy samples (tumour in cases)	6/11	5/30	16s rDNA primer	
Fan XG <i>et al</i> (2002) China	15 HCC	8 with benign liver tumours; 5 with cholelithiasis	PCR on liver biopsy samples	9/15	0/13	16s rDNA primer	
Coppola <i>et al</i> (2003) Italy	21 HCC	7 with metastatic liver disease, 27 with chronic hepatitis	PCR of liver biopsy samples	0/21	0/34	16s rDNA primer	Some cases and controls were HBV or HCV positive
Verhoef <i>et al</i> (2003) Netherlands	20 HCC	31 with liver metastases	PCR on liver biopsy samples	9/20	3/31	16s rDNA primer	
Huang <i>et al</i> (2004) China				8/20	0/16		Original Chinese language paper not retrieved
Ito <i>et al</i> (2004) Japan	15 HCC	10 with cirrhosis, 7 with 'normal' liver	PCR of liver biopsy samples.	13/15	0/17	16s rDNA primer	No information on potential confounders
Pellicano <i>et al</i> (2004) Italy	23 HCC all with HCV cirrhosis	6 with metastatic liver disease	PCR of liver biopsy samples	17/23	2/6	16s rDNA primer	No information on HCV in controls

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Zhang <i>et al</i> (2004) China				16/48	2/37		Original Chinese language paper not retrieved
Rocha <i>et al</i> (2005) France	31 HCC patients all with cirrhosis	12 with benign liver tumours; 12 with metastatic liver disease; 29 with chronic hepatitis; 25 with cirrhosis.	PCR of liver biopsy samples	19/31	19/78	16s rDNA primer	Cases and controls were mainly HCV positive  Species identified by sequencing; <i>H. pylori</i> specific genes identified in 10/19 positive cases and 1/19 controls.
Li <i>et al</i> (2006) China				22/34	0/20		Original Chinese language paper not retrieved
Xuan <i>et al</i> (2006) China	28 HCC	22 other liver disease; 25 gastric cancer, 15 colon cancer, 15 uterine cancer	PCR of liver biopsy samples	17/28	No positive controls in any group	16s rDNA primer	
Abu Al-Soud <i>et al</i> (2008) Sweden	12 HCC	24 with benign liver disease	PCR of liver biopsy samples; tumour and non-tumour samples analysed in cases	7/12	?/24	16s rDNA primer	
Vivekanandan & Torbenson (2008) USA	22 HCC	57 with benign liver conditions (40 with cirrhosis)	PCR of liver biopsy samples – both tumour and non-tumour in cases	0/22	5/57	16s rDNA primer	5 positive controls included 4 with HCV-related cirrhosis