# CLINICAL PRESENTATION OF CHRONIC LIVER DISEASE IN GERMANY: ROLE OF ETIOLOGY, AGE AND GENDER

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# BACKGROUND

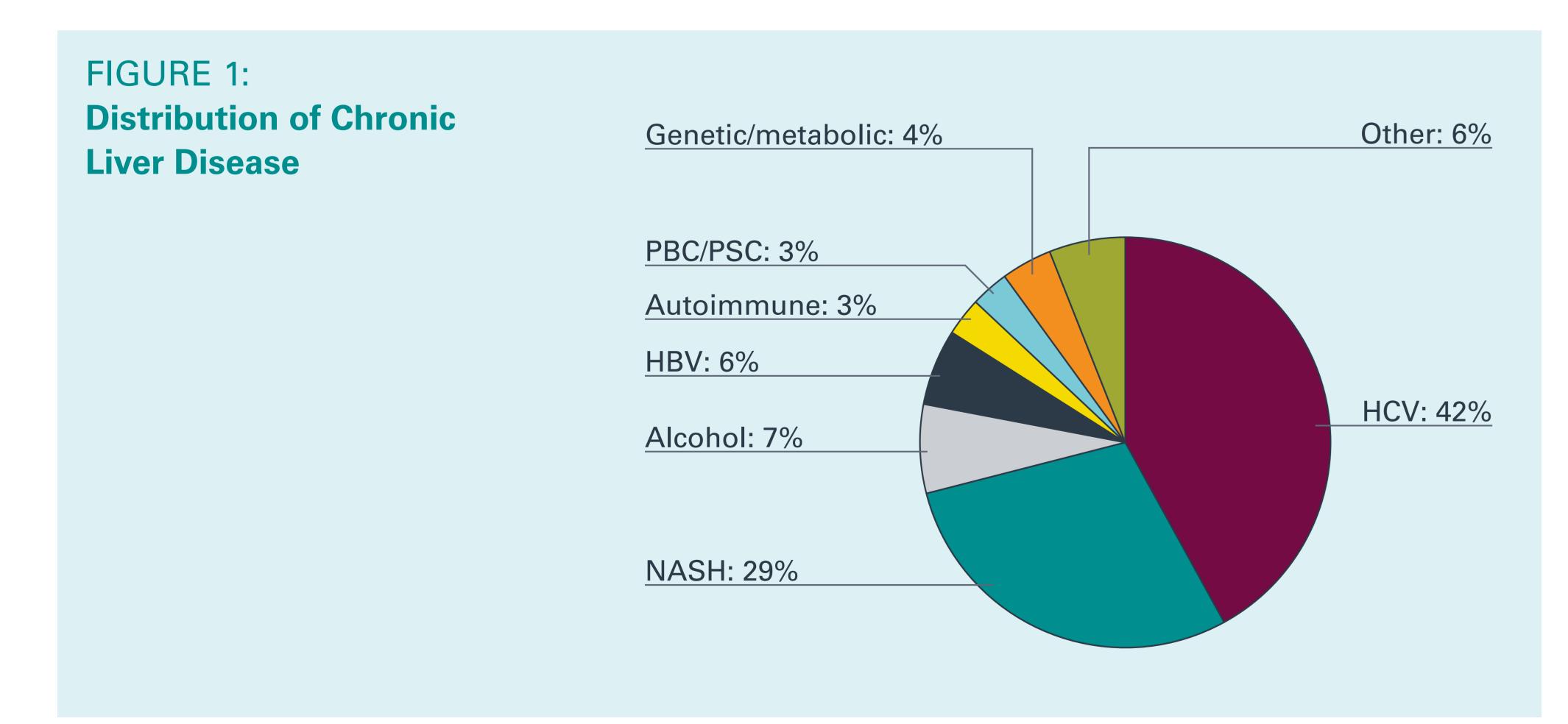
- Many patients with chronic liver disease are asymptomatic or may have nonspecific symptoms such as fatigue in the absence of hepatic synthetic dysfunction
- Information regarding the presentation of chronic liver disease in Germany is still scarce
- We investigated the frequency of asymptomatic and symptomatic presentations of chronic liver disease according to HCV status, gender and age

# METHODS

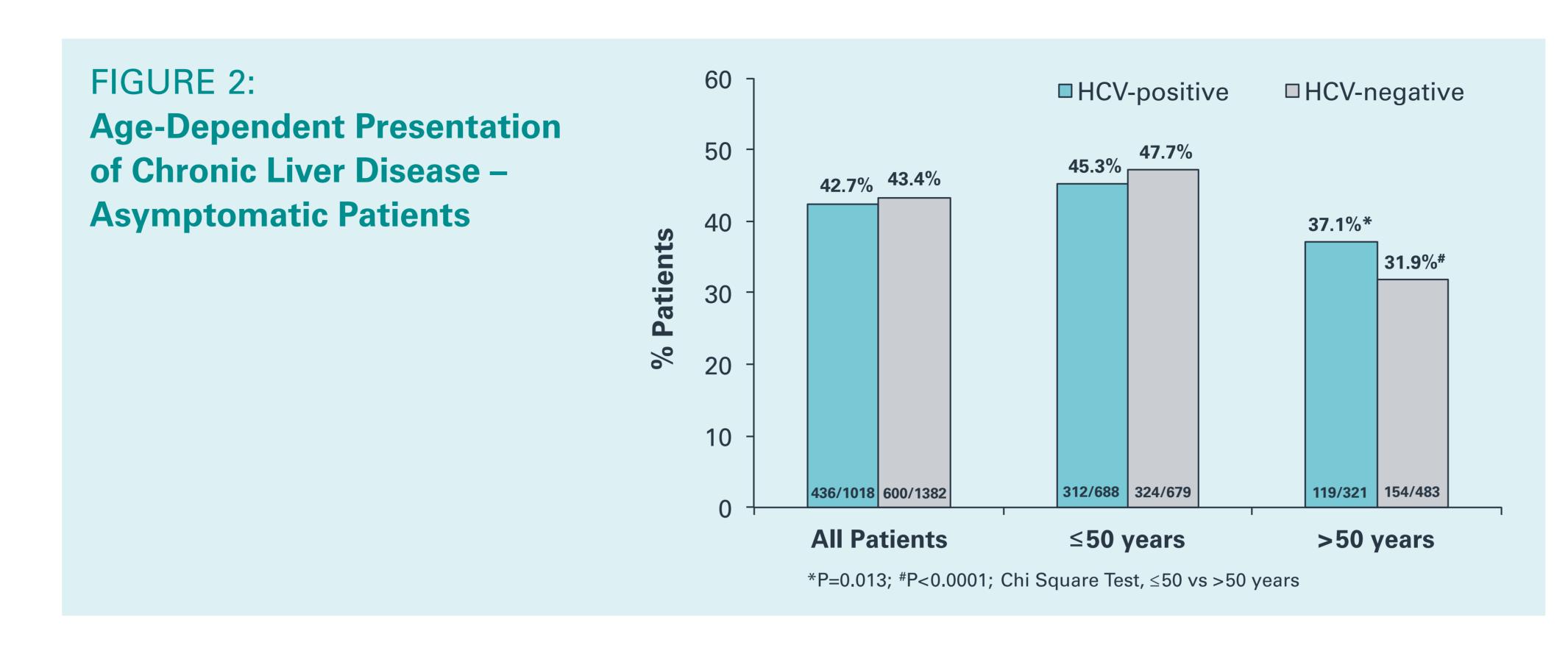
- Based on ALT/AST screening between 12/2008 and 12/2010, 3161 patients with elevated liver enzymes were identified by 19 German hospitals and gastroenterological practices
- Clinical presentations by symptoms (asymptomatic vs symptomatic [e.g. fatigue, pruritus, arthralgia, abdominal pain/discomfort, weak concentration]) were retrospectively analyzed by gender, age and HCV status
- Only patients with information on HCV status were included (N = 2400)
- Patients with liver cirrhosis were excluded from the analysis in order to eliminate symptoms related to cirrhosis

### RESULTS:

• Of 2400 patients with chronic liver disease N = 1018 had chronic HCV infection while N = 1382 suffered from HCV-negative chronic liver disease (NASH: N = 699; alcohol: N = 157; hepatitis B: N = 143; autoimmune: N = 80; PBC/PSC: N = 62; genetic/metabolic: N = 105; other: N = 136) (Figure 1)



• Liver disease was asymptomatic in 42.7% and 43.4% of patients with/without HCV and declined from 45.3% and 47.7% to 37.1% (P=0.013) and 31.9% (P<0.0001) in patients <50 years/>50 years (Figure 2)

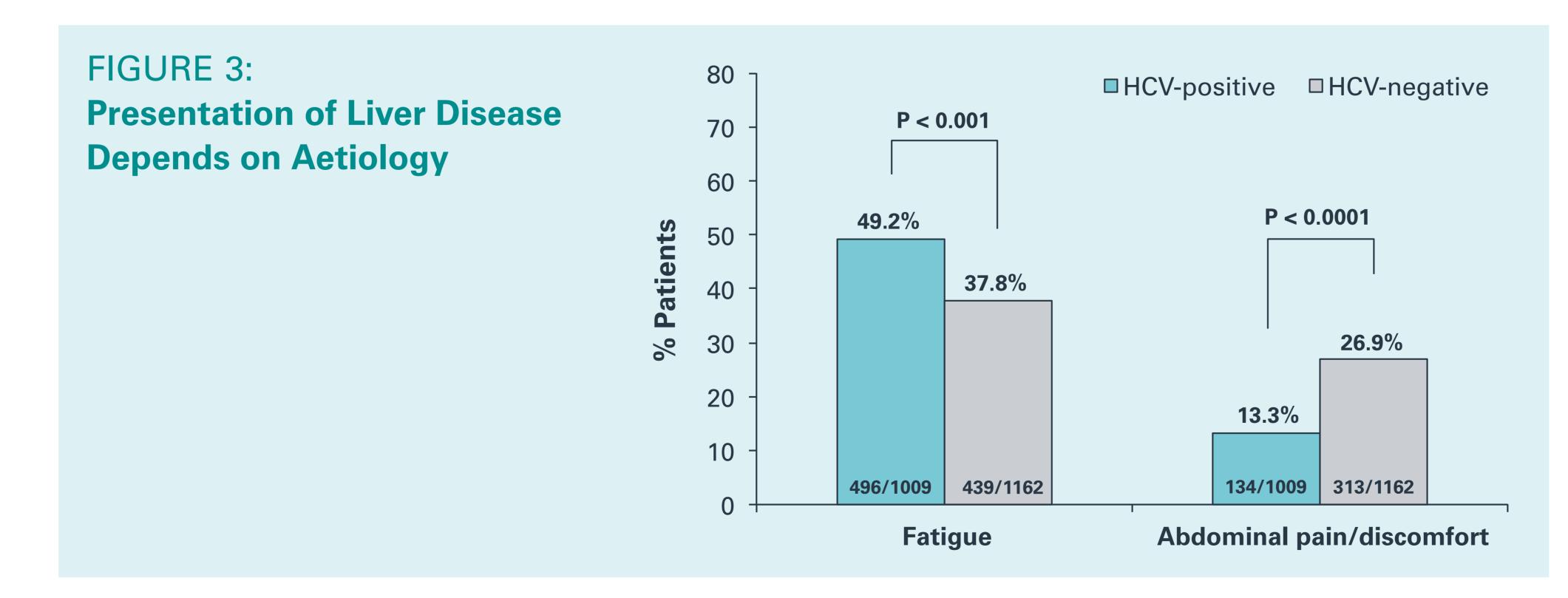


• Fatigue was the most common symptom in both groups with a higher frequency of 49 % compared to 34.7 % in patients with/without HCV (p < 0.001) and increased only slightly with increasing age from 46.7 % and 35.8 % (< 50 years) to 54.4 % (P = 0.02) and 40.6 % (> 50 years; P = 0.10) (Table 1)

TABLE 1: Age-Dependent Presentation of Chronic Liver Disease – Symptomatic Patients

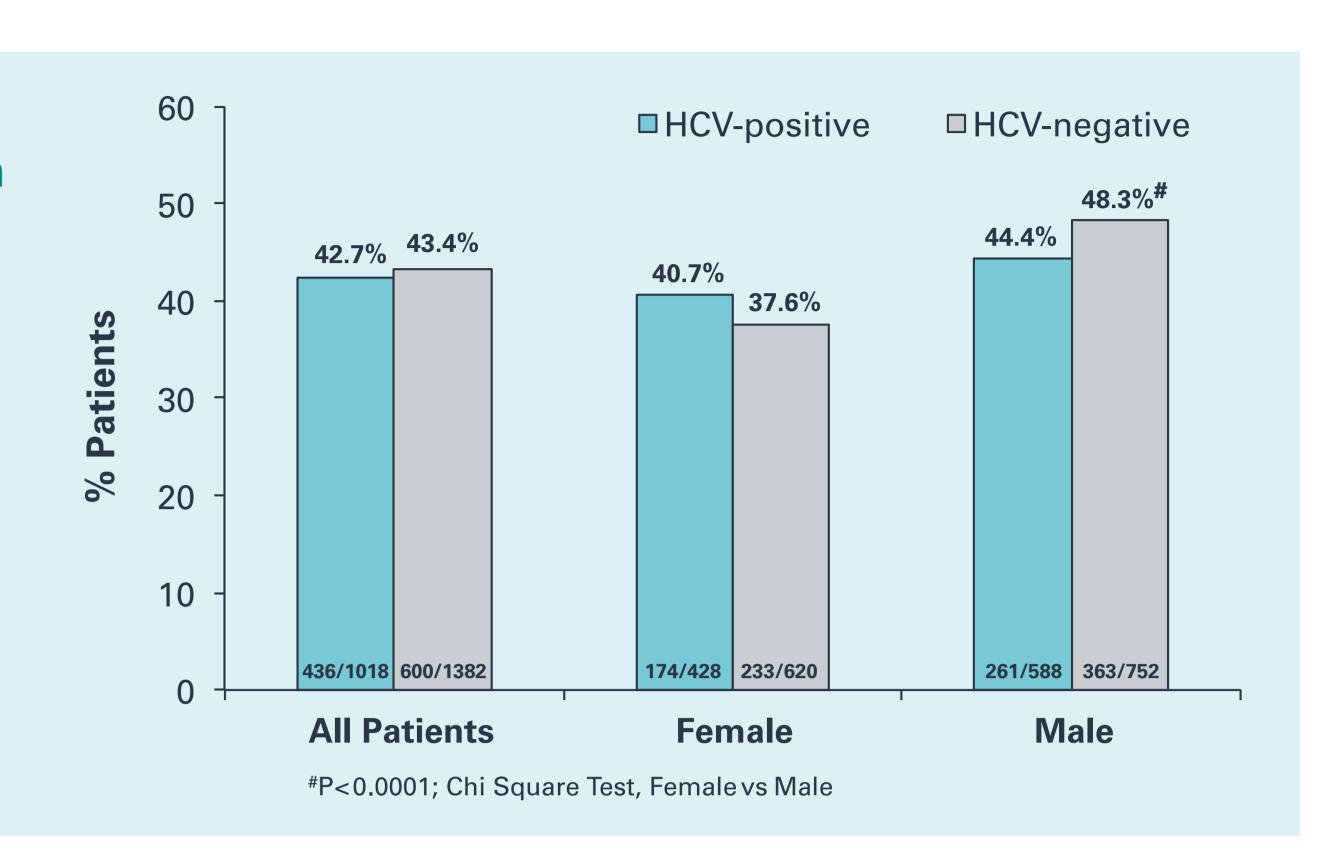
	Age ≤50 years	Age >50 years	P*
CV-positive (%, n/N)			
Fatigue	46.7 (321/688)	54.1 (175/321)	0.0200
Abdominal pain/discomfort	12.8 (88/688)	14.3 (46/321)	NS
Weak concentration	9.9 (68/688)	11.2 (36/321)	NS
Weight loss	6.4 (44/688)	6.2 (20/321)	NS
Arthralgia	3.2 (22/688)	7.2 (23/321)	0.0045
Pruritus	1.9 (13/688)	2.5 (8/321)	NS
CV-negative (%, n/N)			
Fatigue	35.8 (243/679)	40.6 (196/483)	NS
Abdominal pain/discomfort	21.8 (148/679)	34.2 (165/483)	< 0.0001
Weak concentration	9.6 (65/679)	12.6 (61/483)	NS
Weight loss	5.3 (36/679)	9.3 (45/483)	0.0081
Arthralgia	7.7 (52/679)	9.9 (48/483)	NS
Pruritus	5.7 (39/679)	4.8 (23/483)	NS

• In contrast, patients without HCV showed a 2-fold higher frequency of abdominal pain/discomfort (26.4%) compared to HCV patients (13.2%, P<0.0001) with a maximum of 34.2% in patients >50 years (Figure 3)



• Asymptomatic presentation occurred more frequently in HCV-negative male patients but did not differ between female and male patients with chronic HCV infection (Figure 4)

FIGURE 4:
Gender-Dependent Presentation
of Chronic Liver Disease –
Asymptomatic Patients



• The frequency of symptoms was comparable in female and male patients. Only arthralgia occured more frequently in females with chronic HCV infection while the frequency of abdominal pain/discomfort was slightly higher in female patients with HCV-negative liver disease (Table 2)

TABLE 2: Gender-Dependent Presentation of Chronic Liver Disease – Symptomatic Patients

	Female	Male	P*
HCV-positive (%, n/N)			
Fatigue	49.5 (212/428)	48.8 (287/588)	NS
Abdominal pain/discomfort	14.7 (63/428)	12.1 (71/588)	NS
Weak concentration	8.4 (36/428)	11.4 (67/588)	NS
Weight loss	5.6 (24/428)	7.0 (41/588)	NS
Arthralgia	6.5 (28/428)	2.9 (17/588)	<.010
Pruritus	1.9 (8/428)	2.2 (13/588)	NS
HCV-negative (%, n/N)			
Fatigue	36.6 (227/620)	33.5 (252/752)	NS
Abdominal pain/discomfort	30.5 (189/620)	23.4 (176/752)	0.0031
Weak concentration	8.4 (52/620)	10.5 (79/752)	NS
Weight loss	6.0 (37/620)	6.3 (47/752)	NS
Arthralgia	8.5 (53/620)	6.1 (46/752)	NS
Pruritus	5.6 (35/620)	4.4 (33/752)	NS

## CONCLUSIONS

- The present study demonstrates a high frequency (>40 %) of asymptomatic chronic liver disease in the German population
- The frequency of symptoms seems to be determined by aetiology of liver disease and age rather than by gender
- Our results confirm a particularly high prevalence of fatigue in patients with chronic HCV infection

#### **Disclosures**

- AT, JP, PB, SH, RL, KB, GvD, AS, CJ, UN, VM, and VG have a financial relationship relevant to this presentation with MSD SHARP & DOHME GMBH, Germany, a subsidiary of Merck & Co., Inc., Whitehouse Station, NJ.
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