

# HDV Epidemiology Pakistan

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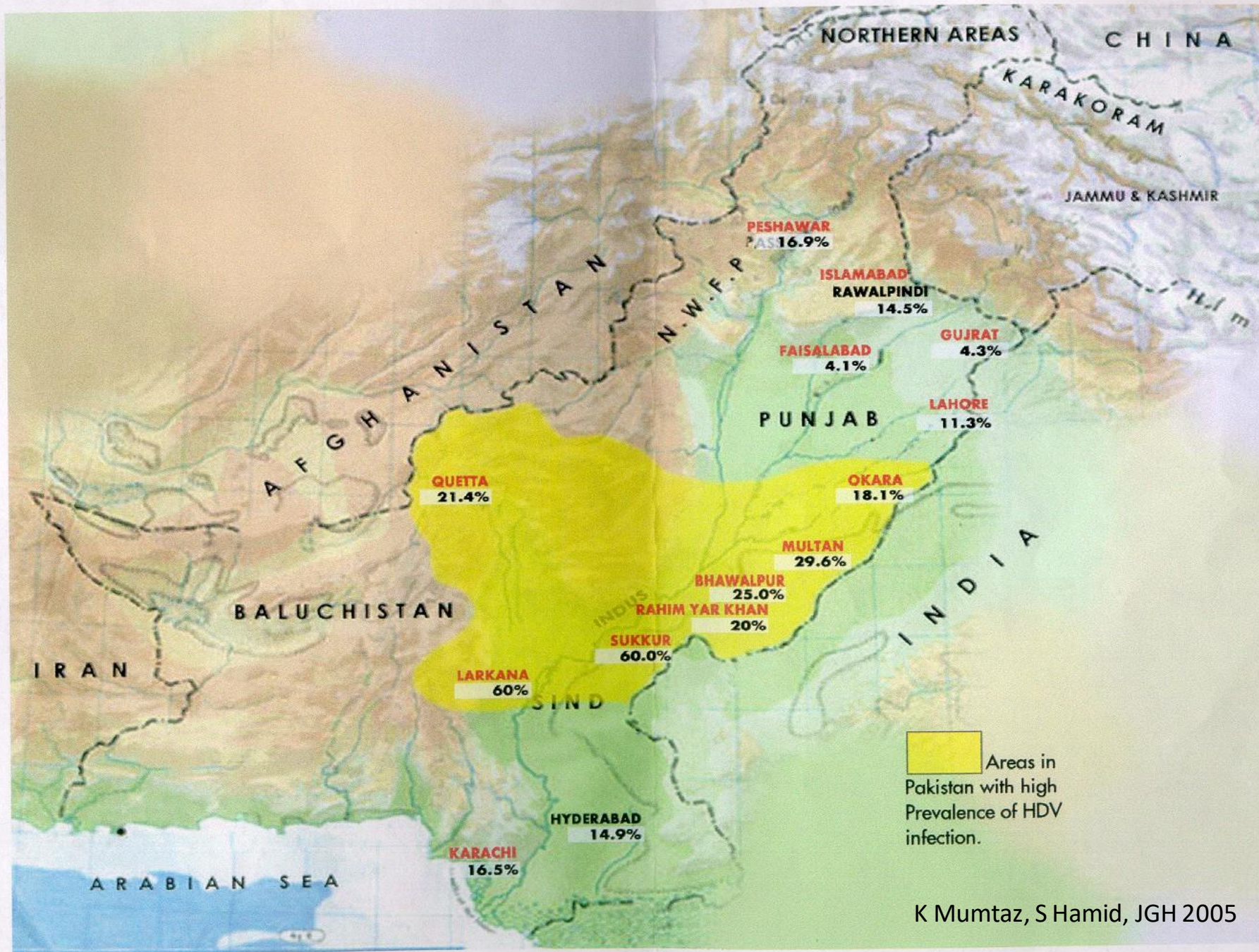
Professor

Department of Medicine

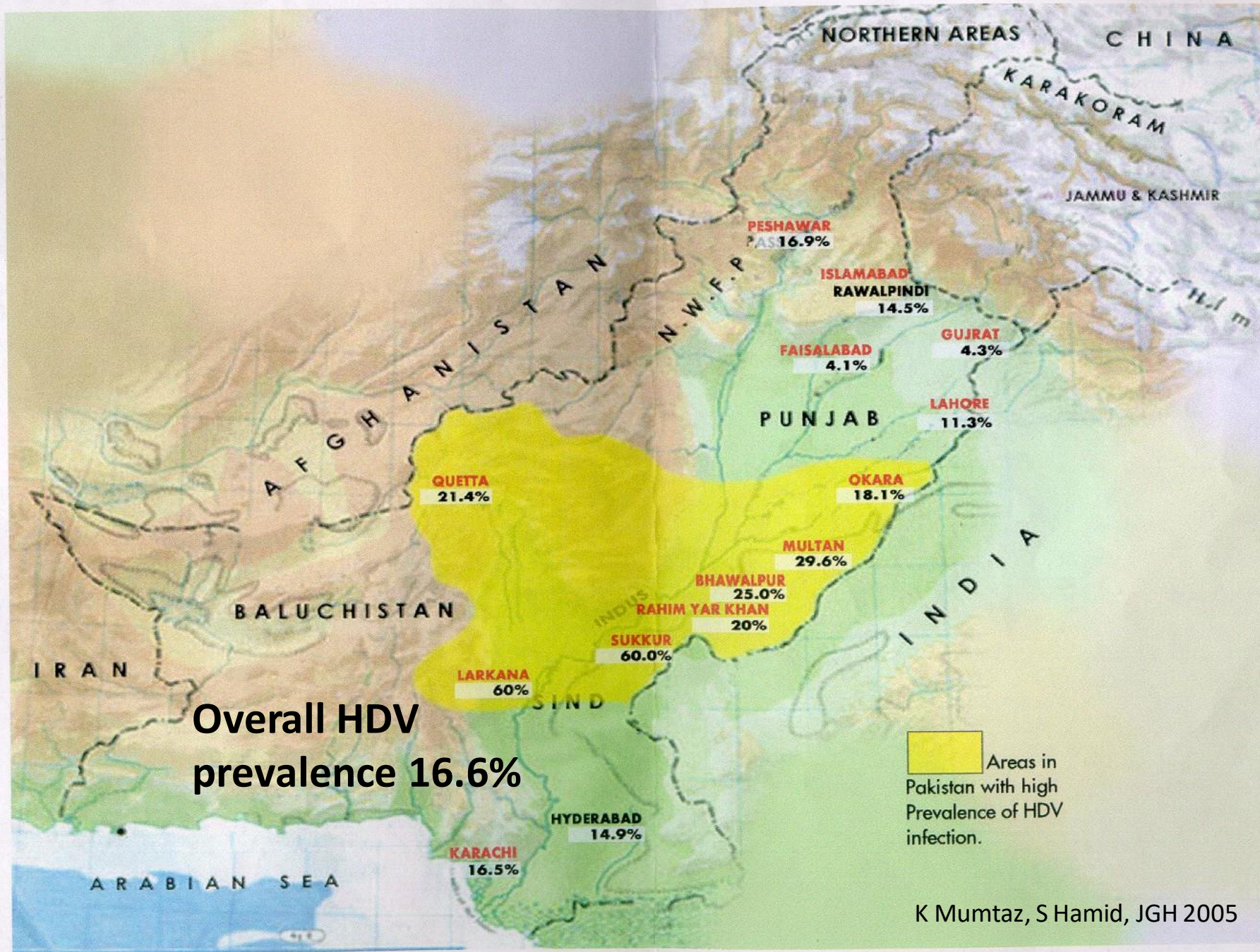
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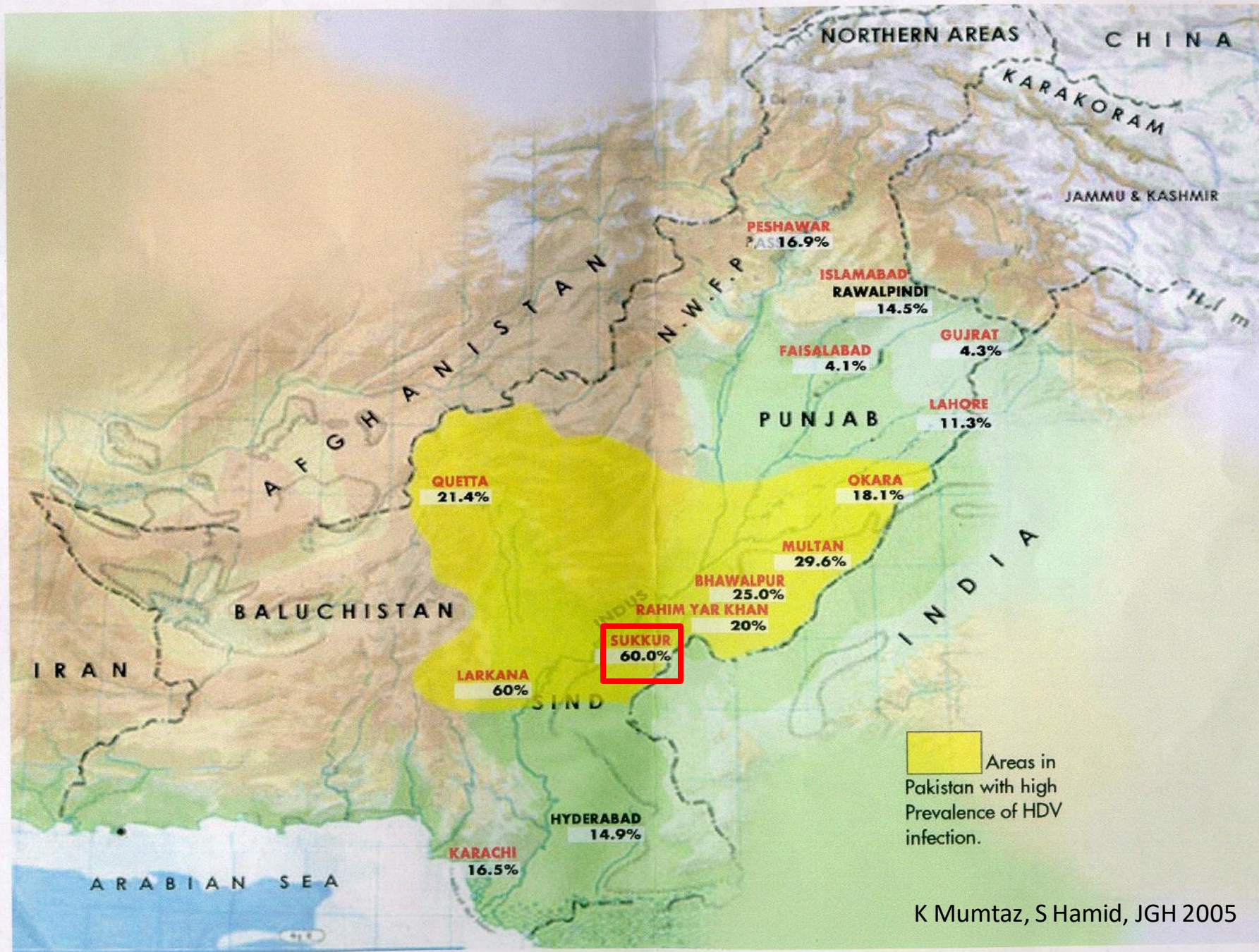
Karachi, Pakistan.





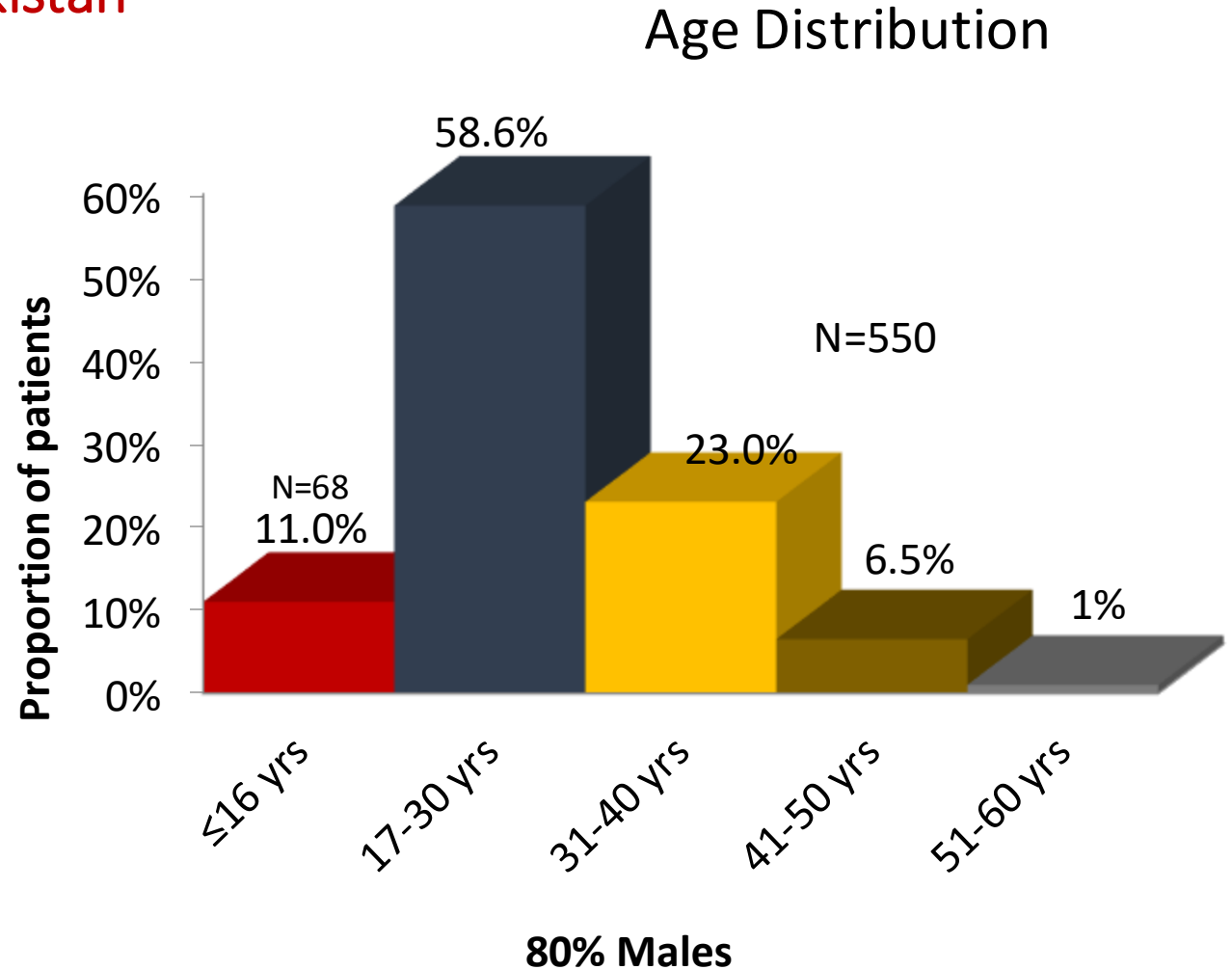
K Mumtaz, S Hamid, JGH 2005



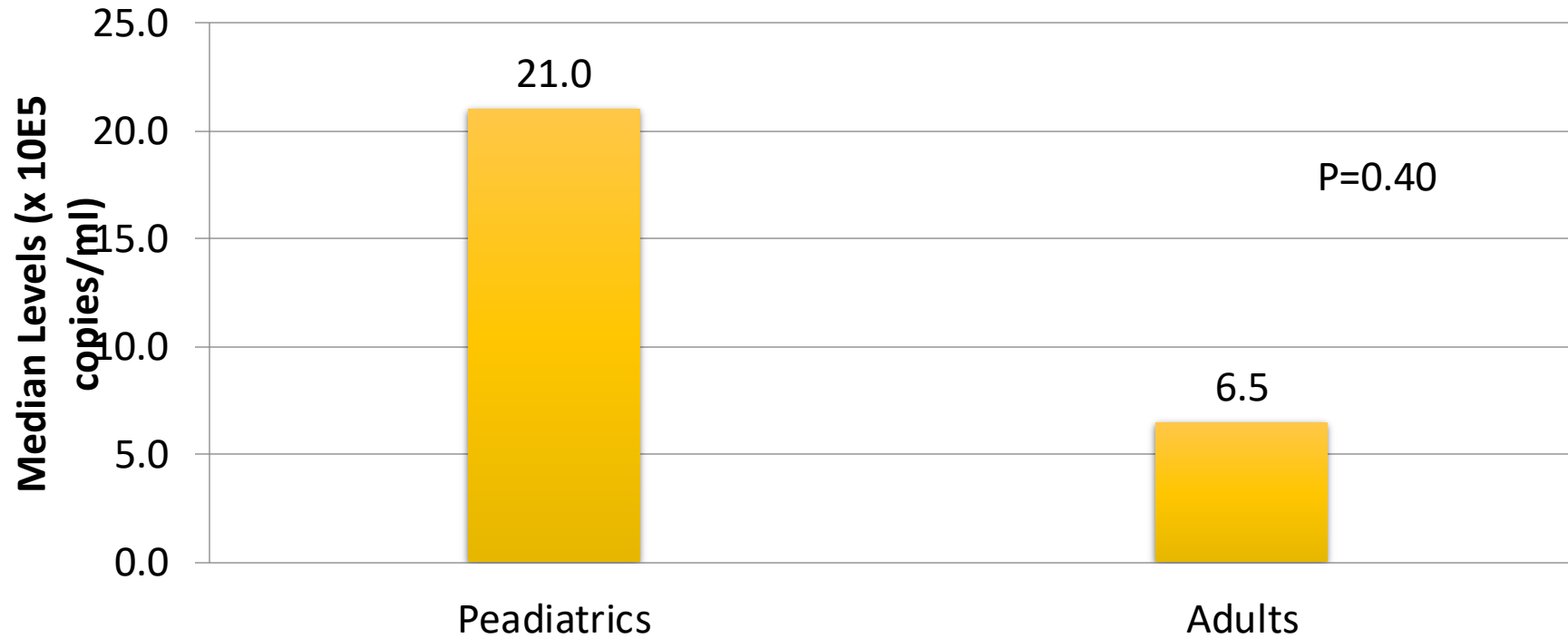


# HDV in Children and Adolescents in Pakistan

- Cross Sectional Study of all patients (N=618) presenting for treatment between 2010 and 2015, at regional referral center, Sukkur.
- All compensated HDV + (Antibody and PCR) patients had a liver biopsy as part of the treatment protocol.
- Overall 338 patients (54.7%) had severe fibrosis (stage 3 and 4).
- A higher proportion of pediatric patients had severe fibrosis as compared to adults (73.8 % vs. 57.2 %, p=0.01).

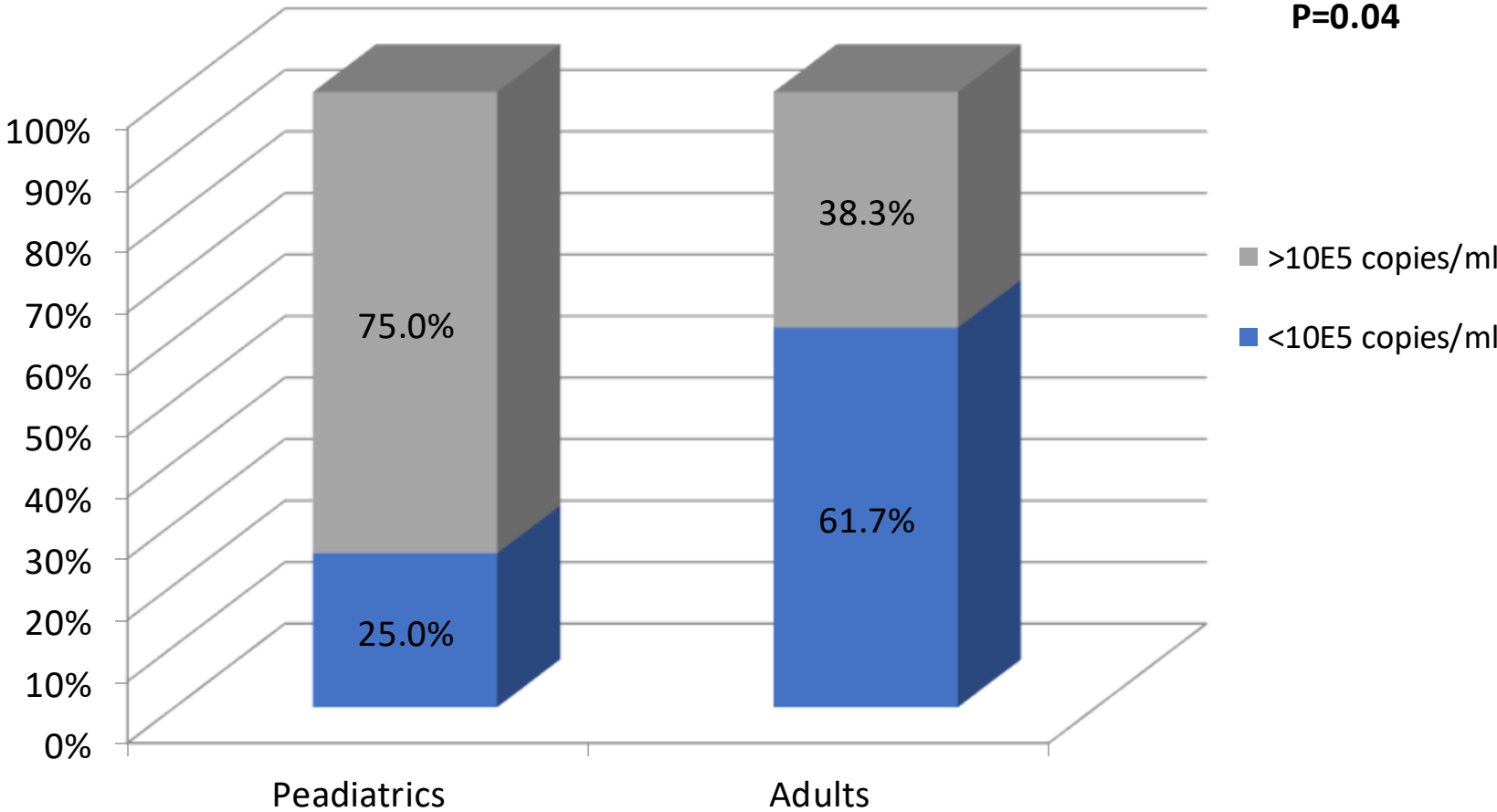


# Quantitative levels of HDV RNA by age groups



	Pediatrics	Adults
HDV RNA levels, median(IQR)	21 x10 <sup>5</sup> (1.7 x 10 <sup>5</sup> to 7.4 x 10 <sup>6</sup> )	6.5 x 10 <sup>5</sup> (7.1 x 10 <sup>4</sup> to 4.4x 10 <sup>6</sup> )

# HBV DNA copies/ml according to age groups



\* HBV DNA was negative in 11% of pediatric patients and 23.5% of adult patients

# LDLT at Gambat/Sukkur for Viral Hepatitis (2016- March 2022)

<b>Etiology</b>	<b>#</b>	<b>%</b>
HBV	121	25
HCV	161	33.5
HBC+ HCV	12	2.5
HDV	188	39
Total	482	



# HDV: Pakistan vs rest of the World

- Patients from Eastern Europe (35.7 years; range:1-79) and Pakistan (32.7 years; range: 11-70) were **younger** (both  $P < .01$ ).
- Patients from Pakistan were more **likely to be HBeAg positive** (35.2%) compared to patients from other regions (10.3%-16.1%).
- **HDVRNA was found to be more often positive** in patients from Pakistan (86.9%) and Eastern Europe (86.4%) (CE 58.9%, SA 46.1%).
- In Pakistan 60.8% of the patients were **HBV DNA positive** compared to 14.0% in South America ( $P < .01$ )

# To conclude:

- A large hot-spot of HDV in Pakistan.
- HDV causing severe hepatitis in children, particularly those actively replicating both viruses.
- Patients from Pakistan more likely to be HBeAg +, HDV RNA + and HBV DNA+