“TAH virus infections were a larger problem than perceived 50 years ago and HCV was the predominant agent transmitted.” Engle et al (2014).

Abstract:

Background: The true incidence of transfusion-associated hepatitis (TAH) before blood screening is unknown. Our aims were to reevaluate blood recipients receiving unscreened blood and analyze hepatitis viruses circulating more than 45 years ago.

Study Design and Methods: Cryopreserved serum samples from 66 patients undergoing open heart surgery in the 1960s were reevaluated with modern diagnostic tests to determine the incidence of TAH and its virologic causes.

Results: In this heavily transfused population receiving a mean of 20 units per patient of predominantly paid-donor blood, 30 of 66 (45%) developed biochemical evidence of hepatitis; of these, 20 (67%) were infected with hepatitis C virus (HCV) alone, four (13%) with hepatitis B virus (HBV) alone, and six (20%) with both viruses. Among the 36 patients who did not develop hepatitis, four (11%) were newly infected with HCV alone, nine (25%) with HBV alone, and one (3%) with both viruses. Overall, 100% of patients with hepatitis and 39% of those without hepatitis were infected with HBV and/or HCV; one patient was also infected with hepatitis E virus. The donor carrier rate for HBV and/or HCV was estimated to be more than 6%; contemporaneously prepared pooled normal human plasma was also contaminated with multiple hepatitis viruses.

Conclusion: TAH virus infections were a larger problem than perceived 50 years ago and HCV
was the predominant agent transmitted. All hepatitis cases could be attributed to HCV and/or HBV and hence there was no evidence to suggest that an additional hepatitis agent existed undetected in the blood supply.

Other intravenous and vascular access resources that may be of interest (External links - IVTEAM has no responsibility for content).